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MEDICAL GUIDE
TO THE
HOT MINERAL
BATHS OF BATH

PUBLISHED BY
THE BATH CORPORATION.

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MEDICAL GUIDE

TO THE

HOT MINERAL

BATHS OF BATH,

WITH EXTRACTS FROM THE
REPORT OF THE SPECIAL COMMISSION OF THE *Lancet.*

PUBLISHED BY THE BATHS COMMITTEE OF THE BATH
CORPORATION WITH THE APPROVAL OF THE LOCAL
COUNCIL OF THE BRITISH MEDICAL ASSOCIATION.

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PREFACE.

The publication of an Illustrated Medical Guide to the Thermal Baths of Bath has frequently been suggested by members of the medical profession, who, visiting Bath for the first time, have marvelled at the completeness of its bathing system. It is possible that the consciousness of its unparalleled record as a health resort, dating even from Roman times, has resulted in too great a tardiness on the part of the city in proclaiming its own merits, and in bringing before the notice of the health seeking community, the unique attractions offered by this fairest of the world's spas.

In soliciting of the medical world, therefore, the privilege of dedicating the present volume, it is hoped that its contents may convincingly show, that far from living upon its historic past, Bath stands to-day unsurpassed by any other health resort, at home or abroad, whether in regard to the medicinal virtues of its mineral springs, or the luxury and scientific completeness of the several establishments wherein the healing waters are administered.

The issue in October, 1899, of the comprehensive report of the *Lancet* Special Commission on "Bath as a Health Resort," supplied a wealth of valuable

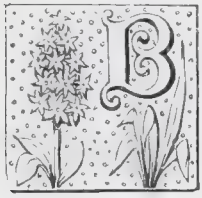
information of an unimpeachable character which is here unsparingly drawn upon, and from the illustrations which accompany the letterpress, some idea may be gathered not only of the high tide of perfection to which the Baths of Bath have attained, but of the many interesting connecting links between the modern and the ancient world, afforded by those remarkable remains of an Imperial Roman splendour which endow the fair city with a fascination so irresistible with travellers from the four quarters of the globe.

Acknowledgment is due to members of the medical profession in the city for their advice and kindly co-operation in the production of the present work, the issue of which, while supplying a long expressed want, may also, it is hoped, lead to a still further appreciation of that wonderful gift of nature which has proved from the very earliest times such a handmaid to medical science in ministering to the infirmities of succeeding generations.

PRINCE BLADUD DISCOVERING THE HOT SPRINGS.

BATH

THE QUEEN OF HEALTH RESORTS.



ATH occupies a unique position among the leading spas of the world, inasmuch as there is no other health resort which has claim to a like antiquity. No doubt exists that the healing virtues of its thermal waters were recognised as early as the first century by the Romans, the magnificent series of thermæ which they constructed being in use before the baths of Titus and Caracalla were built at Rome. There is consequently no bathing establishment with a longer record, as there is likewise probably no other that can compare with it to-day for luxury and modern scientific equipment. The problem surrounding the origin of the hot springs is one that has baffled the greatest students of science, and will probably be for ever included among the earth's mighty secrets. Through summer's heat and winter's cold, through periods of the longest drought or the heaviest rainfall, they rise in undiminished volume at the same astonishingly even temperature, while their wonderful medicinal properties must be classed among those subtle combinations prepared in the laboratory of nature which defy the highest powers of chemistry to

imitate. Romans and Saxons, Danes and Normans, have come and gone, but still from the depths of the uncooled earth, the same waters flow, yielding their virtues without stint or stay to the service of suffering humanity.

It is not only, however, in regard to its antiquity that the position of Bath is unique, for in the United Kingdom, at any rate, its claims are unchallenged as regards the high temperature of its mineral springs, which, as shown in a later chapter dealing with their volume, give a daily yield of upwards of half a million gallons at from 116° to 120° Fahr. Such is the poverty of the British Islands in the supply of thermal water that there are no other hot springs with a temperature exceeding 82°, a fact which has enabled Bath to successfully withstand the vicissitudes of centuries, and which still places the city as a health resort on a pinnacle of its own.

THE LEGEND OF BLADUD.

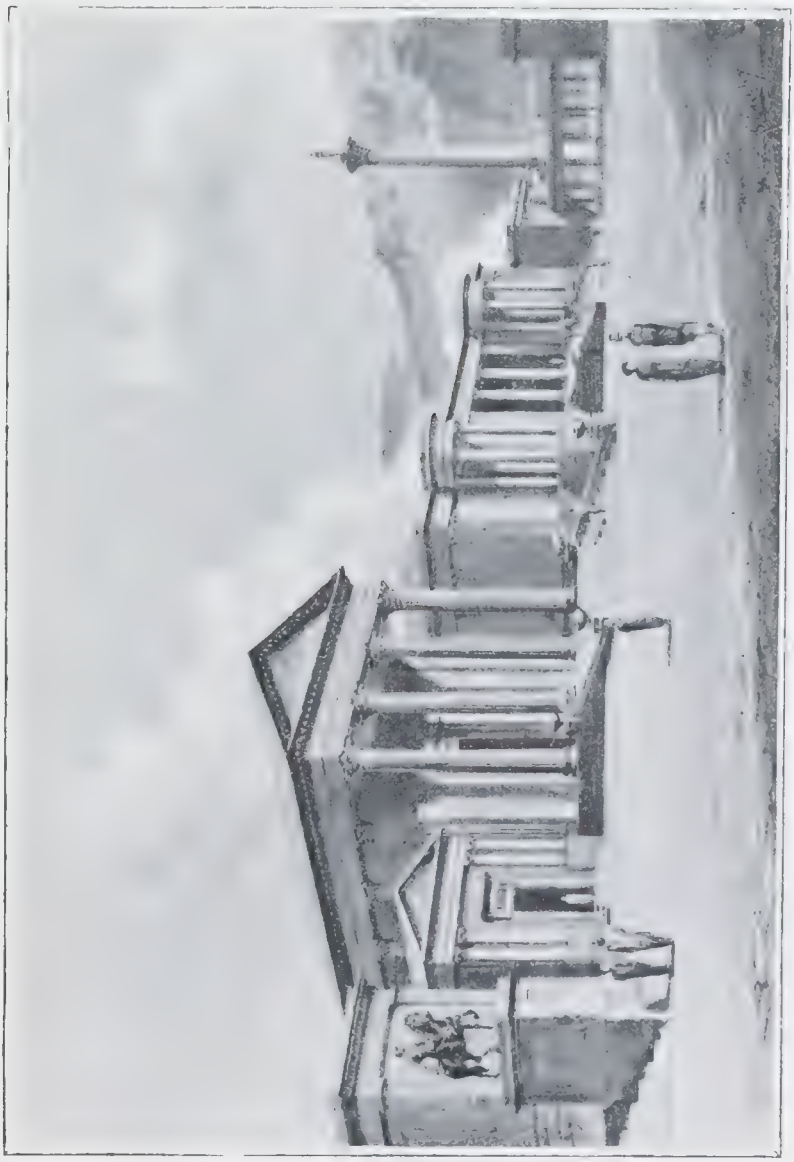
ALTHOUGH history is an entire blank concerning the discovery of the hot springs, the mythical story of Bladud and the swine which early historians have woven round the origin of the city, has obtained such a hold that no publication on the waters is now considered complete without it, in fact, from the time of Queen Elizabeth when Jones published a treatise on the springs, no history of Bath has omitted it. It is, of course, as much a myth as the idea that Rome is indebted for its existence to the nursing by a wolf of Romulus and Remus, and destined it may be to the same immortality. Bladud is said to have been heir apparent to some ancient British king, 800 B.C., and the tradition is that being afflicted with leprosy he was driven from Court and wandered into Somersetshire, where, in great distress, he obtained charge of a herd of swine. The swine caught the disease, but being driven across the Avon to the valley were attracted by hot springs boiling up from the earth, turning their immediate surroundings into a steaming morass. They returned to the spot day after day and wallowed in the mire, with the result that the leprosy left them, and Bladud following their example, was also cured of the disease. The story records that when in after years he succeeded to the throne, he returned to the scene of his wonderful cure, enclosed the area of the springs, and built handsome palaces for himself and his suite. Hence the city of Aquæ Solis (the name given by Antoninus in his Itinerary), afterwards Akemanceaster, then Bathan (answering to the German Baden), and finally Bath.

BATH AS AN ANCIENT SPA.

IT being established beyond doubt that as a Health Resort Bath possesses a record extending over eighteen centuries, peculiar interest naturally attaches to its early history, though anything approaching a detailed description of the superb system of Baths shown by recent excavations to have been established by the luxurious tastes of the Romans, would alone fill a large volume. It is only during recent years that anything like an accurate judgment has been formed of the vastness and architectural grandeur of the ancient structures, and there is certainly no other town in Europe which can offer such telling proofs of ancient splendour as Bath has to show to-day in her Roman remains. Even now with five great baths disclosed the excavations have been conducted over merely a tithe of the site of the ancient Spa, and there is little doubt that the whole of the modern establishments have been built over the site of the colossal baths and temples of the Roman occupation. It is believed that the Roman Thermæ from the first to the fourth century covered an area exceeding seven acres, and capable of the accommodation at one time of upwards of 1,000 bathers, while a much larger area of gardens and recreation grounds undoubtedly adjoined the baths themselves.

Until about the year 1754 the existence of these remarkable relics was merely a matter of conjecture. It

The smaller building on the right represents what is supposed to have been a Temple dedicated to the Divinity Sul.



SUPPOSED ROMAN TEMPLES AT BATH,

Believed to have existed from the friezes, cornices and sculptured symbolism discovered.

The larger structure on this side of the picture represents the Temple of Minerva.

was about that period that the first bath was discovered, and then there was a lapse of about 100 years before any further work of exploration was proceeded with. Many of the most important discoveries were made by Major Davis, F.S.A., the City Architect, as late as 1882 and subsequent years. It was about that time that the great rectangular bath was excavated, the site of which was previously covered by dwelling houses and shops. The illustration on page 15 represents the bath in the precise condition in which it was uncovered. It has a water surface of 82 feet by 40 feet, and originally occupied a hall 110 feet by 68 feet. The bath was coated with lead, 30 lbs. to the foot, consequently there were more than 10 tons used in covering it. This lead must have been obtained from the Roman mines in the Mendip Hills in Somersetshire, while the baths themselves were constructed from material from the hills surrounding the city, where now exist the famous quarries of Bath stone. Beside the four other baths there have been discovered the Roman well, an octangular enclosure 50 feet by 40 feet, and the heating chambers for hot dry baths, corresponding to the system now known as Turkish baths. In the Museum at Bath are preserved some remarkable architectural relics of what is believed to have been the entrance vestibule or Apodyterium of the ancient baths, which occupied a portion of the site on which the Grand Pump Room now stands, and some idea of its magnificence may be formed from the specimens of beautiful sculpture included among the remains unearthed. There has also been excavated near the same site at a depth of 27 feet beneath the Pump Room, a flight of stone steps leading to an ancient dipping-place in a sort of trough into which pure mineral water was conducted from the centre of the well for the use of drinkers. This affords

ROMAN BATHS AT BATH.

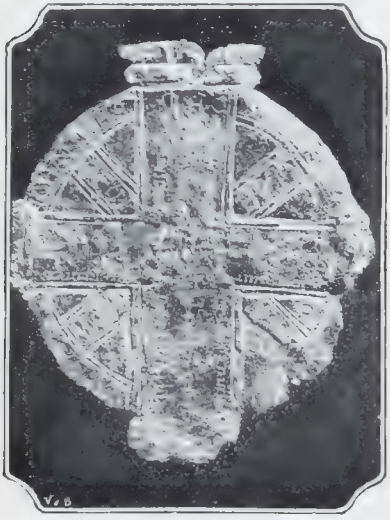
This picture represents the Great Roman Bath and Circular Bath in the precise condition in which they were discovered, the plate being executed from a Photograph of the Model of the Roman Thermæ exhibited at the Paris Exhibition, 1900.

positive proof that the Romans recognised the value of the mineral water for drinking. In this dipping-place were found two metal flagons, one drinking cup, and another of smaller dimensions, a gold ear-ring, armlets, gold pins, bronze ornaments, &c., and also two metal charms. Further testimony to the recognition by the Romans of the healing virtues of the springs is provided by the discovery of a bronze tablet recording the cure of a Roman lady by the waters, attested by three distinguished witnesses, one of whom was an Augustal priest of Rome. In 1807 a wooden duct which formerly bore away the hot mineral water from the principal spring was traced for a distance of about 100 yards. The wood of this duct which is oak is remarkably perfect, although the structure was probably put together, if not in the reign of Claudius, not later than the time of Titus. Coins of these Emperors were found during the progress of exploration, with others of Constantine and his successors. Still more remarkable recoveries from this duct were a carbuncle ear-ring set in gold, a crescent pin with a pearl, other pins of bronze, fibulæ, &c., and no less than 30 gems or Intaglios, pronounced by the authorities of the British Museum to be of either the first or second century.

That the ancient baths and their surroundings should be handed down over so many centuries in such a unique state of preservation can only be explained by the assumption that on the sacking of the place by the Saxons in 577, the conduits which carried off the superfluous hot water from the springs were choked up and the area of the baths flooded, the mineral deposit of many centuries covering the floors in some places to a depth of 15 feet, and acting as a preservative.

Following a period of desolation a new city was raised

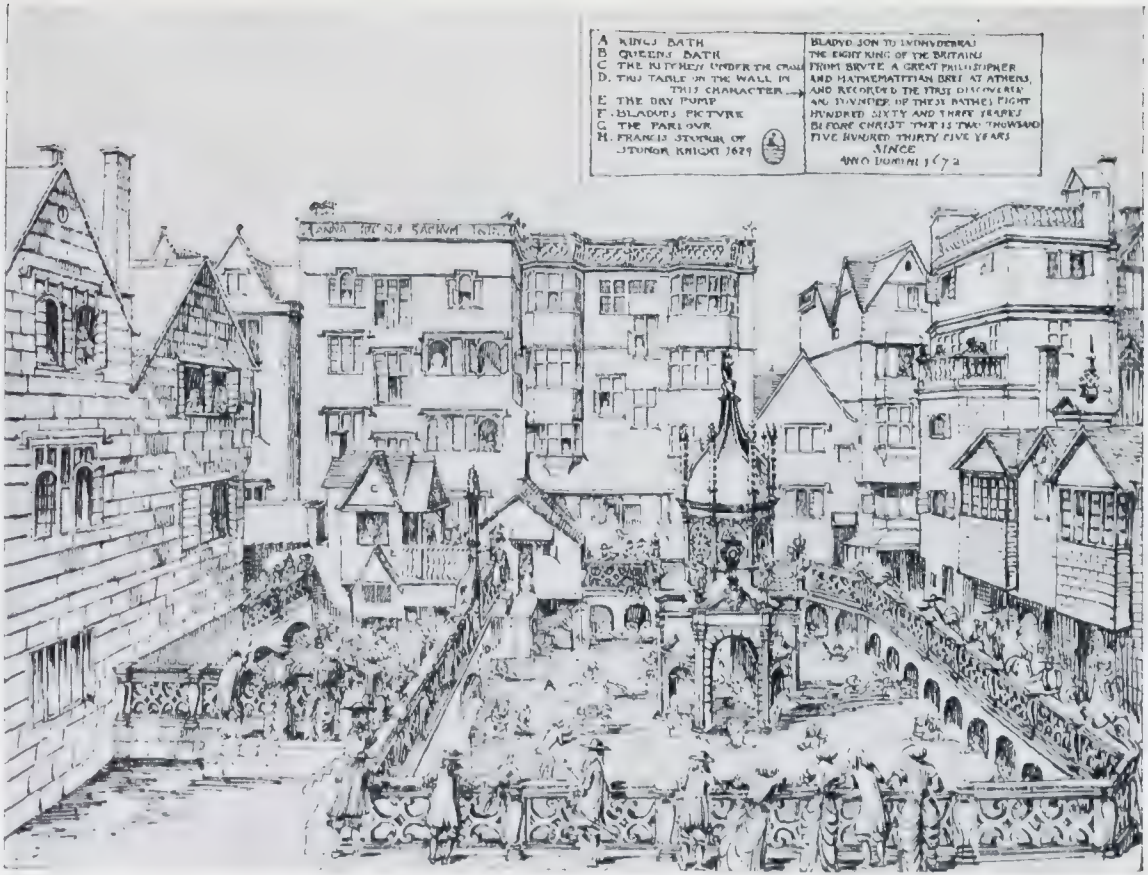
upon the site of the former baths, and the Saxon proceeded to his daily toil heedless of those relics of a bygone splendour which lay at his feet destined to remain in the earth's safe keeping during so many succeeding centuries. It is important to find, however, that through all the various stages of the city's history the virtues of the waters continued to be recognised. Warner tells in his history of Bath how that in A.D. 676, Osric built a monastery here and visited its hot waters, while Offa a century afterwards made it the residence of his Court for some time. Athelstan and Edgar also delighted in the use of its mineral springs, and indeed, almost all the Saxon kings honoured Bath, either with their presence or enriched it by their munificence. A priceless memento of the Saxon period, here illustrated, in the form of an inscribed seal or leaden cross was recently unearthed during excavations on the site of the ancient baths. It measures $4\frac{1}{8}$ inches by $3\frac{1}{2}$ inches, and is believed to have been executed in commemoration of the death and burial of the famous Eadgyfu, wife of Edward the Elder. The important rank which the city occupied in those early days is evidenced by the fact that in 973 King Edgar was crowned with great pomp in its Saxon Abbey. From very ancient times a bath seems to have been provided for the use of Royal visitors, since the name King's Bath occurs as early as the beginning of the 13th century.



SAXON CROSS.

THE BATHS IN THE XVII CENTURY.

FROM the Saxon period, however, till the commencement of the last century, but little is recorded of the actual state of the baths. In 1881 the British Museum were fortunate in purchasing an old pen and pencil drawing of the King's and Queen's Baths made in 1675, the work of J. Johnson, an artist mentioned by Horace Walpole as having "made a draft of Canterbury in 1651." Judging from this picture, which is very carefully drawn and bears every appearance of extreme accuracy, the bathing hour at that period must indeed have been a lively one. (See illustration on opposite page). The figures represented in the drawing exceed 170 in number, and the picture well illustrates the descriptions given by various early writers of the houses surrounding the baths, mostly occupied by medical men, with lodging accommodation sufficient for all their patients. Bathers not residing here were after their bath usually packed in a sheet and blankets and sent home in a Sedan chair, there being no proper accommodation at the bath for dressing. The immortal gossip Pepys, who visited the city in 1668, alludes to this custom in the following entry in his diary: "To the Cross Bath where we were carried . . . Away wrapped in a sheet and in a chair home (I stayed about two hours in the water) to bed sweating for an hour." The Cross Bath alluded to was at this time the most fashionable bath, and Defoe in his *Tour through the Island of Great Britain*, published in 1725, also gives an inter-


A KINGS BATH
B QUEENS BATH
C THE KITCHEN UNDER THE CHAM
D. THIS TABLE IN THE WALL IN THIS CHARACTER
E THE DRY PUMP
F. BLADUDS PICTVRE
G THE PARLOVR
H. FRANCIS STOVGH OF STONOR KNIGHT 1629
BLADVD SON TO LVDHVDEBRAS THE EIGHT KING OF THE BRITAINS FROM BRVTE. A GREAT PHILOSOPHER AND MATHEMATITIAN BRIT AT ATHENS, AND RECORDED THE FIRST DISCOVERIES AND INVENTIOF THESE BATHES EIGHT HVNDRED SIXTY AND THREE YEARES BEFORE CHRIST THAT IS TWO THOWSAND FIVE HVNDRED THIRTY FIVE YEARS SINCE
ANO DOMINI 1672

KING'S AND QUEEN'S BATHS, 17TH CENTURY.

esting description of the bathing customs of the period. "In the morning," he writes, "the young lady is brought in a close chair, dressed in her bathing clothes to the Cross Bath. There the music plays her into the bath, and the women who tend her present her with a little floating wooden dish, like a basin, into which the lady puts a handkerchief and a nosegay, and of late years the snuff box and smelling bottle are added. She then traverses the bath, if a novice, with a guide, if otherwise by herself, and having amused herself near an hour calls for the chair and returns to her lodgings." In the centre of the Cross Bath there formerly stood an elaborate structure surmounted by a cross, which was erected by the Earl of Melfort, Secretary of State to James II., in commemoration of the Queen Mary of Modena having used this bath with happy results in 1688. The bath, which is now a cheap public one, has been latterly much repaired and enlarged, the accumulated rubbish of ages which obstructed the reservoir being removed, so as to allow of the water rising straight up from the Roman spring, as in the King's Bath.

The drawing already referred to represents a crowd of figures in every imaginable position disporting themselves in the King's Bath, wholly or partially clothed, or when juvenile devoid altogether of apparel. There is no doubt that about this time the baths were allowed to fall into a shocking state of disrepair, and in all the writings dealing with the period a pitiful vista is presented of neglect, alike of comfort and of decency. Not only were the baths open to the weather, but the bathers to the jibes and sometimes the pelting of idlers, who loitered in a public passage overlooking the bath, while youngsters wandered naked about the precincts of the bath and dived in for pence thrown in by the onlookers. There

was no provision whatever for the separation of the sexes until the year 1753, when the Corporation decided that the bath should be given three days to the ladies and three to the gentlemen. At the time of Johnson's drawing the King's Bath appears to have been devoted largely to swimming and diving. The figures represented in the Queen's Bath, adjoining, are, with one or two exceptions, ladies, according to Pepys "very fine ladies, and the manner pretty enough, only methinks it cannot be clean to go so many bodies together in the same water. Strange to see how hot the water is, and in some places the springs so hot as the feet are able to endure. Women and men live all the season in these waters, parboiled and look like creatures of the bath." Additions to the establishments in later days necessitated the Queen's Bath being built over, but the King's Bath still remains, the principal spring rising in its centre. This may be viewed from a window in the Grand Pump Room. Public bathing was continued in this bath up till recent years. Inserted in the walls surrounding it are a number of brass rings, placed there for the use of bathers by persons who had derived benefits from the waters. (See illustration on page 27.) Many of the rings have, from time to time, been removed, but a number of those remaining are handsome and massive, notably one bearing the name of the Duchess of Cleveland, while upon another is inscribed: "Thanks to God, I, John Revet, his Majesty's brazier, at 50 years of age in ye present month of July, 1674, received cure of a true palsie from head to foot on one side."

PRIMITIVE BATHING CUSTOMS.

THE primitive methods of administering the waters which existed till nearly the close of the following century, afford a striking contrast to the luxurious and comfortable provisions of the present day. To serve the purpose of what is now known as the douche, water was pumped or poured in buckets on to the affected limb by officials known as pumpers, during which process the patient stood in the hottest part of the bath. A table of fees charged in 1778 shows that 100 strokes of the pump were given for 3d., and Dr. Peirce relates that as many as 700 or 800 pumps were now and then directed on the bare head, then 1,500 and 2,000 and so on for five or six weeks every year. For lumbago 2,000 strokes were ordered to be pumped on the back, and the cure was completed by ten more pumpings of a thousand strokes each. As a result of the entire absence of toilet accommodation at the bathing establishments, patients who resided beyond the immediate precincts of the baths were entirely at the mercy of the Sedan chairmen. Visitors were carried in Sedan chairs to bathe, and back again without change of clothes, to bed. As one writer remarks, "nothing could exceed the helplessness of an invalid, swaddled in a wringing wet bathing dress which he was anxious to change. On this helplessness the chairmen traded. If a 'fare' was obstinate, the door of the chair was fastened on the outside and the inmate became a prisoner. In cases of unusual determination to resist extortion, the top of the chair was removed, and if

"'Twas a glorious sight to behold the fair sex
All wading with gentlemen up to their necks,
And view them so prettily tumble and sprawl,
In a great smoking kettle as big as our hall.
And to-day many persons of rank and condition
Were boil'd by command of an able physician

FROM ROWLANDSON'S SKETCH OF KING'S BATH, 18TH CENTURY.

Dean Splavin, Dean Mangley and Doctor De Squirt,
Were all sent from Cambridge to rub off their dirt.
So Tabby, you see, had the honour of washing,
With folks of distinction and very high fashion,
But in spite of good company, poor little soul,
She shook both her ears like a mouse in a bowl."—
Anstey's New Bath Guide.

it happened to be raining smartly, an hour of this treatment was found effectual even in confirmed cases. One gallant general was left in this predicament the whole of a winter's night, and was half killed by his supplementary bath."

The quaint manners and customs of the period are amusingly dealt with by the inimitable pen of Rowlandson, and the witty verse of Anstey, the satirical poet of the period. (See pages 23 and 25). Anstey's famous satire, "The New Bath Guide," won such instantaneous success that the booksellers could not supply it fast enough, and nothing can be said to so clearly illustrate the realism of the Eighteenth Century with all that characteristic humbug, hypocrisy, charlatancy and folly peculiar to a certain type of Bath "Society" of the period. But Anstey was not always satirical, and the following lines in gilt letters in the Pump Room which he wrote in aid of the Bath Mineral Water Hospital, afford an instance of the nobler side of his character and still serve to keep his memory green :

Oh pause awhile, whe'er thou art
That drinks this healing stream,
If e'er compassion o'er thy heart
Diffused it's heavenly beam,

Think on the wretch whose distant lot
This friendly aid denies ;
Think how in some poor lonely cot
He unregarded lies.

Hither the helpless stranger bring,
Relieve his heartfelt woe,
And let thy bounty like this spring
In genial currents flow.

So may thy years from grief and pain,
And pining want be free,
And thou from heaven that mercy gain,
The poor receive from thee.

FROM ROWLANDSON'S SKETCH OF THE PUMP ROOM AT BATH, 18TH CENTURY.

GLIMPSES OF A NEW ERA.

THE custom of drinking the waters appears to have been first introduced in 1572, when the practice was advocated by Dr. Jones, the author of a curious old book on the baths, entitled "The Bathes of Bathes Ayde, wonderfull and most excellent agaynst very many sicknesses." Drinking the waters ultimately came to be considered so important a form of administering them that at the close of the 17th century, the Corporation decided on building a Pump Room.

Then dawned the great fashionable era of Bath, when Royalty and all the famous people of the period flocked into the City, large numbers in search of health, others unable to withstand the attractions of its society. During succeeding years Bath claimed as its citizens all the brighter ornaments in the world of science, art, and literature, and even at the present day pilgrims attracted hither from distant lands linger upon the scenes immortalised in "The Rivals" and "School for Scandal"; upon the gardens beside the winding Avon, where Sheridan conducted his romantic wooing; upon the sylvan glades surrounding the beautiful mansion of Prior Park, where lived Ralph Allen, the "Squire Allworthy" in "Tom Jones"; upon the residences of Jane Austen and Hannah More; the garden from which Herschel swept the heavens; the homes of Chatham and Pitt; and the Square where Dickens, Forster, Maclise and Southey

KING'S BATH AND MINERAL SPRING (Present Day).

received the hospitality of Walter Savage Landor, and where, to quote from Forster, the fancy which took the form of Little Nell in the "Curiosity Shop" first dawned upon the genius of its creator.

Right from the time of the visit of Queen Elizabeth in 1574, the City's connection with Royalty has been a close and intimate one. Queen Anne of Denmark visited the City both in 1613 and 1615; in 1644 Queen Henrietta, wife of Charles I., came for the benefit of the waters; and in 1663 King Charles II. brought Queen Catherine here for the same purpose. The visit of Queen Anne, however, with Prince George, her consort, in 1702, greatly increased the reputation of the waters, and this was followed, in 1734, by a visit from the Prince of Wales, father of George III., who presented to the City a beautiful silver gilt salver and loving cups; while Queen Charlotte resided in Bath in 1817 and held daily levees in the New Pump Room. At that time Her Majesty lived at 93, Sydney Place, and His Majesty King William IV., then Duke of Clarence, occupied No. 103, a house at the other end.

To venture further upon the names of visitors to Bath during this memorable era would be to run over the literary and social annals of the century. There can be no doubt that the wonderful change which was brought about in the fame and fortunes of the city was due in no small measure to the social administration of Beau Nash, the famous Master of the Ceremonies, for until the commencement of his rule, the reputation of Bath had sunk to a very low ebb, and but for the baths would probably have dwindled to the condition of a mere village. Under Nash's reign we have the first glimpse of Bath as a modern spa, and the introduction of properly organised entertainments for the reception and entertain-

ment of visitors. Instead of a wretched band playing to country dances upon the green in the Orange Grove, he organised a good one and placed it in the Pump Room. Handsome Assembly Rooms were built and regular dances and receptions held, in the conduct of which Nash was a thorough and much needed autocrat. He may be said to have appeared just as such a man was needed as a controlling power in a disorganised community, and as the tide of fashion set in the direction of the city at this time with resistless force, it will be readily seen what importance attaches to the period of his reign in connection with the city's general revival. Not only did the fame of the waters become world-wide and attract by their healing virtues all the world of fashion, but aided as Nash was by the munificence of Ralph Allen and the architectural genius of the Woods, a new city was raised; mediæval Bath was swept away and modern Bath took its place. Speedily there rose those fine streets, squares and crescents which impart to the fair City to-day so much architectural dignity, and which, combined with the charms of nature in an exceptional degree, still retain for it foremost rank among the most beautiful cities of the world.

BATH AS A MODERN SPA.

BUT while the early history of Bath as a Spa may be a subject of peculiar fascination to the ordinary reader, among members of the Profession to whom the present volume is dedicated, a far greater interest naturally attaches to the City's existing title to fame. In this connection it is no vain boast, but a fact almost universally admitted, that for magnificence and the perfection of their equipment, the Baths of Bath are unrivalled in Europe. The vast improvements and additions to the establishments of recent years, with the introduction also of every appliance which science and experience can suggest, render it no longer a necessity for English people to visit foreign Spas for the mere sake of mineral water and medical treatment. A Paris writer in a well-known London illustrated journal only a few months ago, observed that French and German doctors had been heard to remark that they considered the English people perfectly mad for going abroad to obtain what could be enjoyed on an even greater scale of luxury at home, and here it is important to quote the opinion of the *Lancet* on the same point. "The conclusion must undoubtedly be arrived at that Bath possesses in a most satisfactory manner all the requirements of a valuable resort for the treatment of disease by hydro-therapeutic measures. There is no real reason why patients suffering from diseases presently to be enumerated should take the long journey to the continental Spas when equally good results can be

obtained at Bath. In addition, by not leaving their own country they will enjoy their accustomed mode of living within the limits placed upon them by their medica. advisers and they will have the benefit of English cooking and English hotels and apartments. Bath is within easy reach of London and other large towns, and thus the separation of members of families from each other (unless specially indicated) need not be complete or prolonged. The bathing establishments are open all the year round and can, therefore, be visited when many of the continental resorts are closed." In a subsequent paragraph the *Lancet* says: "IT IS DOUBTFUL WHETHER AT ANY SPA SUCH A COMPLETE AND WELL-APPOINTED BATHING ESTABLISHMENT CAN BE FOUND."

PUMP ROOM FOUNTAIN.

The Baths of Bath comprise in all four separate establishments for private bathing, each in close proximity to the other. There are the King's and Queen's Baths with which the Pump Room conveniently communicates at its south-western end, the new Royal Baths, adjoining the Grand Pump Room Hotel, the old Royal or Hetling Baths and the Kingston Baths. The New Royal Baths were opened in 1870, and about fifteen years ago a new wing was added to the King's and Queen's Baths, an extension embracing an elaborate and up-to-date system of continental treatment, the introduction of which may be said to have at once given to the Baths of Bath pre-eminence over any other English or foreign Spa. This

new wing was opened by the Duchess of Albany in June, 1889. The laying of the corner stone in 1886, and the continuance of the Baths on one site for so long a period are recorded in an inscription on the south wall of the King's Bath. To this wall the Roman and the Saxon, and succeeding generations to the present time have in turn contributed, so that the structure represents an unbroken history from Claudius and Edgar, Henry III. and Charles I. to the present day. The inscription reads as follows :—

ON JULY, 1886,
UNDER THE MAYORALTY OF ANTHONY HAMMOND,
THE HOT MINERAL BATHS COMMITTEE (J. J. WILKINSON, CHAIRMAN,)
HAVE LAID ON ROMAN MASONRY SEVENTEEN [EIGHTEEN] HUNDRED YEARS OLD
THE CORNER STONE OF NEW BATHS ;
THUS CONNECTING IN WORK AND OBJECT
THE MODERN WITH THE ANCIENT WORLD.

CHARLES E. DAVIS, F.S.A., *Architect.*

The amount spent by the Corporation in recent years in additions and improvements to the establishments has not been far short of £80,000, while so earnest and constant is the endeavour to provide for the comfort and accommodation of the increasing number of visitors to the City that the income of about £7,000 is invariably absorbed in the expenditure annually incurred. It is quite a mistaken idea to suppose that the last century was the palmy era of Bath, in spite of the fact that the continent was then as a sealed book. Even to-day with a system of travel that is world-wide, and notwithstanding the competition of continental rivals, the Baths of Bath enjoy a prosperity with which no former period in the City's history can compare. The present number of bathers and the cures effected are altogether without parallel in the annals of the City, and the healing virtues of its waters are yearly attested by thousands of grateful patients.

THE GRAND PUMP ROOM (from a photograph taken during the morning drinking hour).

THE SPRINGS AND THEIR VOLUME.

IN considering the necessary conditions for the satisfactory and successful establishment of a spa, the *Lancet* points out that first and most obviously ranks a plentiful supply of a water possessing actual therapeutic properties, dependent either on its temperature or on its mineral or gaseous constituents. As regards this qualification it adds: "BATH CAN SUCCESSFULLY HOLD ITS OWN AGAINST ANY MEDICAL RESORT IN EUROPE." The thermal waters rise by three springs known respectively as "The Hot Spring or Old Royal," "The King's Bath Spring," and "The Cross Bath Spring." The total volume of water from all the springs exceeds half a million gallons a day. The highest temperature is obtained at "The Hot Spring," which gives a yield of one hogshead and a half per minute at 120° Fahr. For drinking purposes the water from the King's Bath Spring is used, being supplied from a many-sprayed fountain in the Grand Pump Room, fresh and sparkling as it rises from the mysterious heating chambers of the earth. This fountain receives a supply of eight and a half gallons per minute at a temperature of 114°. The overflow is received into a circular marble basin surrounding the fountain, and in this are placed the glasses in which the drinking waters are dispensed to visitors, so that they are kept constantly warm.

"It is interesting," continues the *Lancet*, "to observe the change of colour which takes place in the glass

owing to the presence of iron in the water. . . . Reference to the analytical report will show that there is a large quantity of nitrogen evolved, together with some carbonic acid, oxygen, and the two rare elements, helion and argon. Our knowledge of the action of these gases on the human organism is small, but there would seem to be but little doubt that they do exert considerable power, whether by mechanical action on the peripheral nerve-endings and cutaneous vessels or by absorption is uncertain. The mineral constituents are not absorbed—at least, to any appreciable extent—but whether or not the gases are absorbed is another question. Attempts have been made to imitate the constitution of natural mineral waters but without success. Dr. Luff has made analogous experiments with regard to the ashes of plants and has shown that, although the extracts of the ashes have a solvent effect on the biurate of soda, when an attempt is made to form the solution artificially the same solvent action is not obtained. So it is probably with efforts to imitate the natural waters, the explanation being that it is not known what is the natural combination in which the elements exist and clinically that fact may make all the difference. It has been suggested that "telluric" heat may differ from artificial heat, but this supposition has by no means been proved."

The water for the baths is forced by means of two pumps into a high closed tank capable of holding 20,000 gallons. The pumps are each capable of dealing with that amount of water per hour, so that a plentiful supply is assured under considerable pressure. The consumption for the various baths is enormous. The single baths generally contain 780 gallons, and the largest single baths hold 900 gallons. In the reclining baths there is an overflow contrivance, which ensures a current of fresh

water being provided all the time during the progress of the bath. Some idea of the extent of the provision demanded for the supply of the mineral water to the various baths, douches and sprays, may be formed from the fact that there are at the various establishments close upon 1,000 different taps, while the pipes for the whole service, would, if extended continuously, reach no less than 40 miles. The volume of water from the springs being so abundant there is not only sufficient to supply the various establishments with fresh mineral water to every private bather, but the Corporation are enabled in addition to supply the baths of the various free hospitals, the principal of which is the Royal Mineral Water Hospital, built for the reception of poor patients received from all parts of the United Kingdom, of whom about 65,000 have been cured or relieved, out of a total of 76,000 admitted since its foundation in 1742.

The Angel.—"The Troubling of the waters."

This fine piece of statuary, over the Fountain in the Grand Pump Room, was presented by the late H. W. Freeman, Esq., F.R.C.S., in commemoration of the opening of the New Queen's Baths, by H.R.H. the Duchess of Albany, in 1889. It was executed by the late Warrington Wood.

KING'S AND QUEEN'S BATHS.

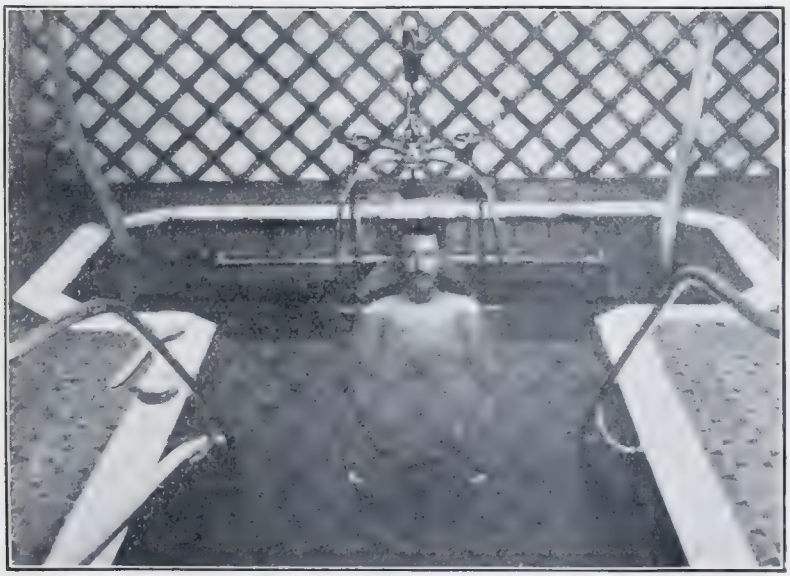
APPARATUS AND APPLIANCES IN USE AT THE BATHS.

[Extracted from the *Lancet.*]

EQUALLY important is the second point—suitable apparatus and appliances. In this respect, also, Bath is to be highly complimented. The City has a great advantage over most continental resorts—namely, that the administration of the baths is vested in the hands of the City Corporation and not in the hands of the Government. Under a governmental *régime* the appliances as a rule are marked by great and often inconvenient simplicity. At Bath, on the other hand, the managing body spares no expense to make the baths and the surroundings not only as complete as possible, but even luxurious; everything that can add to the comfort of the bathers is provided. Not only so, but every new therapeutical appliance which promises to be of use in treatment is at once installed should it be recommended by the Advisory Committee which is composed of medical men. A large variety of baths are in use, some of the appliances having been adopted from other spas.

The Deep or Chair Bath.—The rooms in which the baths are contained are from 12 to 14 feet long, eight feet wide, and 11 feet high. Each bath occupies the greater part of a room; it is T-shaped and lined throughout with porcelain tiles, giving a very pleasing

appearance. Each bath contains from 800 to 900 gallons of water, with an average depth of about four feet six inches. It is large enough to enable the patient to move freely about, and brass rings for the patient to hold on to are fixed in the walls. There are marble seats attached to the sides of the bath. The approach is by a flight of steps with brass rails on either side. Whilst in the bath the patient is almost entirely submerged. An excellent device is adopted for those patients who owing to physical causes are unable to walk down the steps; a



DEEP OR "CHAIR" BATH.

wooden arm-chair is suspended from a metal rail which runs across the room. By means of pulleys the chair can be brought to the door of the dressing-room, the patient placed in it, and if thought desirable he can be held in it by means of a sheet, but as a rule this is not necessary. The chair is pulled over the bath and by hydraulic power gently lowered into the bath. The movement is wonderfully even and easily controlled,

contrasting very favourably with the awkward apparatus adopted at some other spas. After a few baths it is often possible for the patient to get out of the chair whilst in the bath, and supported by the water and holding on to the rings, he can gradually begin to move the limbs. A special feature of these baths is the "undercurrent douche." This consists of a hose and nozzle, a powerful stream from which can be applied to any part of the patient's body whilst under water. This has been found most valuable in the treatment of sciatica. The temperature of the bath can be maintained by the natural heat of the waters at 110°, but if this is considered too hot it is cooled by means of cold mineral water to the required temperature. The composition of the water is thus not altered. The temperature and force of the douche can also be accurately regulated, the water passing through a "mixer" before reaching the hose. After each bath the room is thoroughly cooled and ventilated. The dressing-rooms are admirably appointed and every requisite for the invalid's comfort is supplied. In the New Royal private baths each dressing room has a water-closet attached to it. The greatest attention is, of course, given to cleanliness.

The Reclining Baths.—These are used at the different establishments if preferred to the deep baths, some patients being unable to take advantage of the latter. Each contains about 150 gallons of water and is provided with a hose and nozzle, so that the under-current douche can be applied. The arrangements for regulating the temperature are the same as in the deep bath. Massage is sometimes employed in connection with these baths.

Aix Massage Douche Baths.—These have been adopted from Aix-les-Bains. The rooms set apart for this

process are admirably arranged ; each douche-room has two or three dressing-rooms so that a large number of patients can be attended to without any unnecessary waiting. The douche-rooms measure 13 feet 9 inches by 10 feet 6 inches, with domed roofs 20 feet high. The walls and roof are tiled throughout. The floors are artistically laid in ceramic tesseræ. Douche,

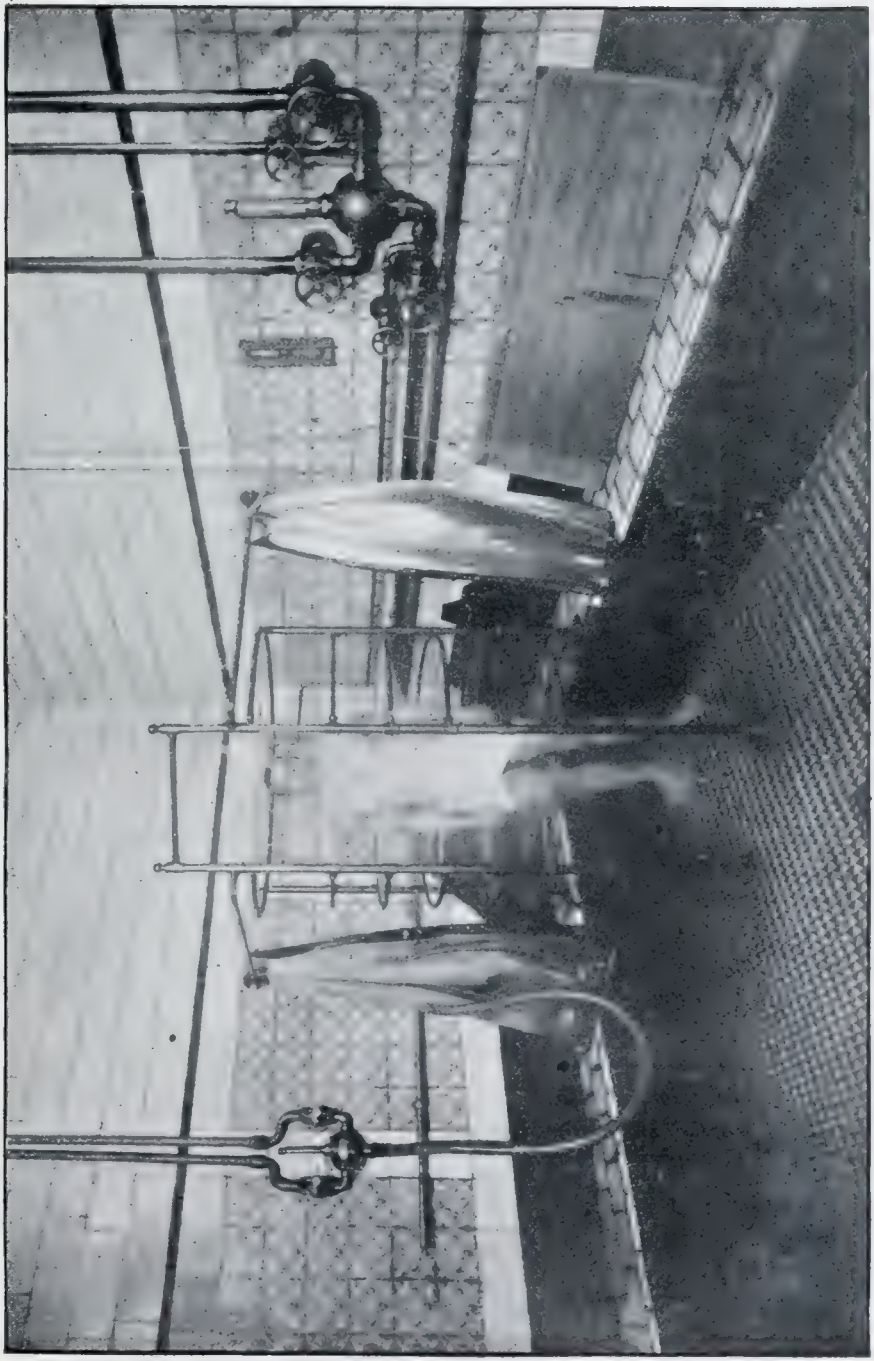
AIX MASSAGE.

sprays, and showers of many varieties are arranged round the walls and there is a double water-supply to each consisting of hot and cold natural water so that the temperature can be accurately regulated. The furniture of the room consists of a wooden chair and stool, both of which are sprayed with hot water before use. Whilst the

bath is proceeding the floor is covered with a layer of water four inches deep, the excess constantly escaping through one corner into the Roman culvert. If two attendants are present each douches the patient with water at the stipulated temperature whilst applying massage. If one massuer only is employed a stream of water is passed through a large rose and plays over the back or chest of the patient whilst one or other is receiving the rubbing by the attendant. The time of the

AIX MASSAGE.

bath can be judged by a sand-glass fixed to the wall of the room. Towards the end of the bath the temperature is gradually lowered and finally the patient has a cool shower or needle-bath. He then returns to the dressing-room, where he is "packed" by the attendant and is gradually allowed to cool, completing the process in one of the comfortable rooms, well supplied with literature, which are provided for the purpose.



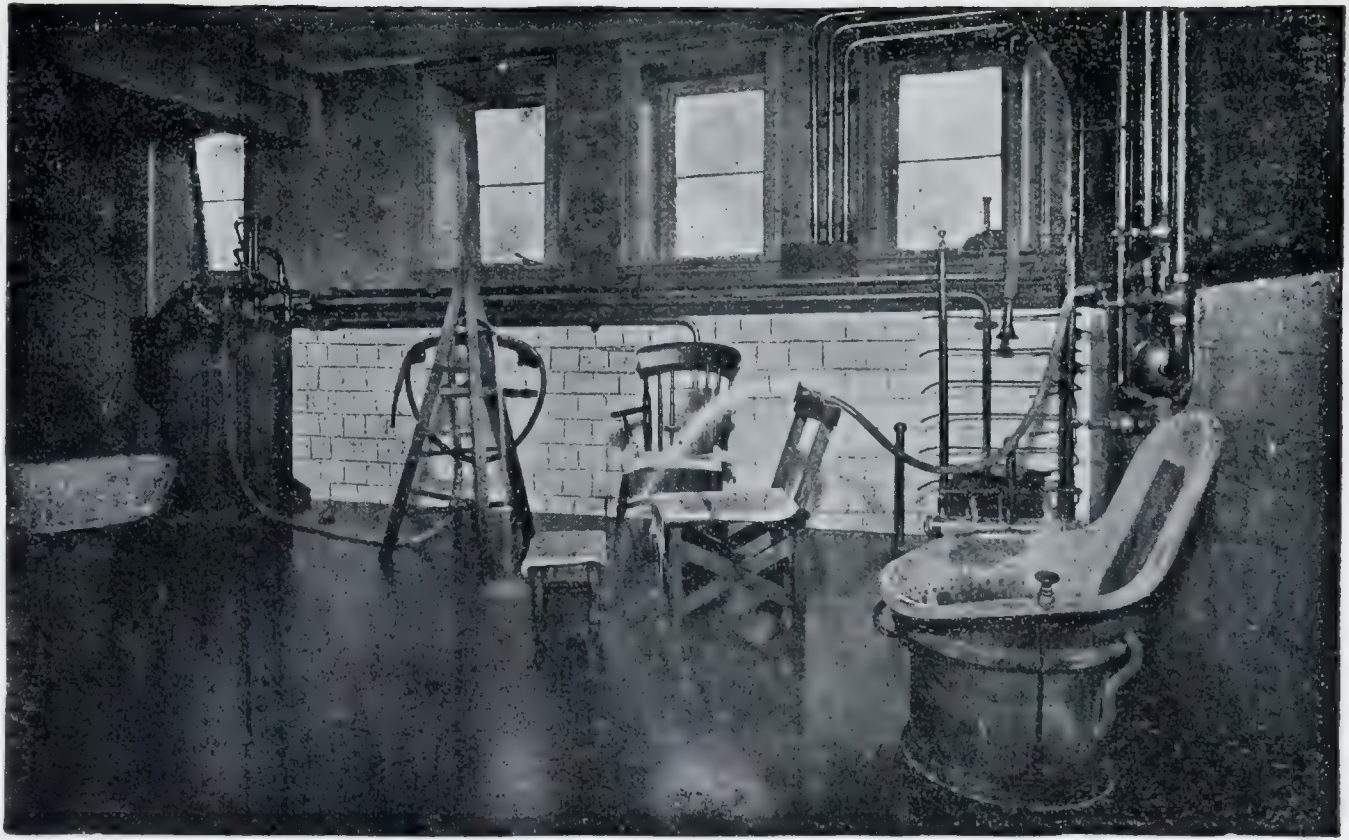
NEEDLE DOUCHE AIX MASSAGE ROOM.

Needle Bath.—This apparatus has six ribs on solid brass supports, with perforations in each rib $1\frac{1}{12}$ inches apart, which are so fine that with a two-inch service pipe fine jets of water cover an area of 3 feet 6 inches. By this means the whole of the patient's body receives the spray at the same time, producing a markedly bracing effect. (See illustration on page 43).

The Local Spray.—What is known at Bath as a

LOCAL OR "DRY" DOUCHE.

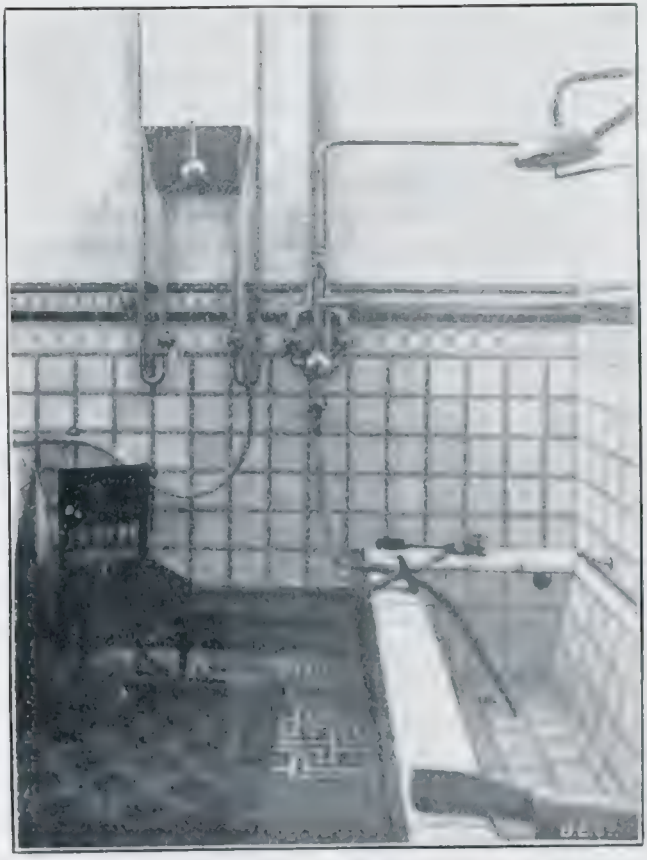
"dry douche," distinguishing it from the "wet douche" when the patient is immersed in the bath, is employed when is is undesirable to bathe the patient. The apparatus is so arranged that a strong current of water at a temperature of 115° is sprayed over an arm or leg through a rose, the rest of the body being protected and



GRAND VICHY ROOM AND APPLIANCES.

kept dry ; in fact, the individual operated on does not undress. A great advantage is that the heat of the water being a natural heat there is no fear of the temperature being too high. This method is found useful in some chronic joint affections.

THE SCOTTISH DOUCHE.—This is used in the same room as the douche-massage and consists of two hoses



RECLINING BATH.

and nozzles by means of which strong streams of hot and cold water can be alternately turned on to the patient. It is useful in cases of neurasthenia.

SITZ-BATH.—This is a very remarkable apparatus ; it

can be used as a lumbar spray or spinal bath or as an enema bath, or as a vaginal douche, sprays or streams of water playing in the desired direction according to the tap which is turned.

NATURAL VAPOUR BATHS.

The Bertholiet or Natural Vapour Bath may be local or general. By means of an ingenious apparatus any part of the body—a leg, an arm, or a single joint—can be submitted to the influence of the steam derived from the thermal waters. The temperature can be raised by admixture of ordinary steam, but the usual temperature

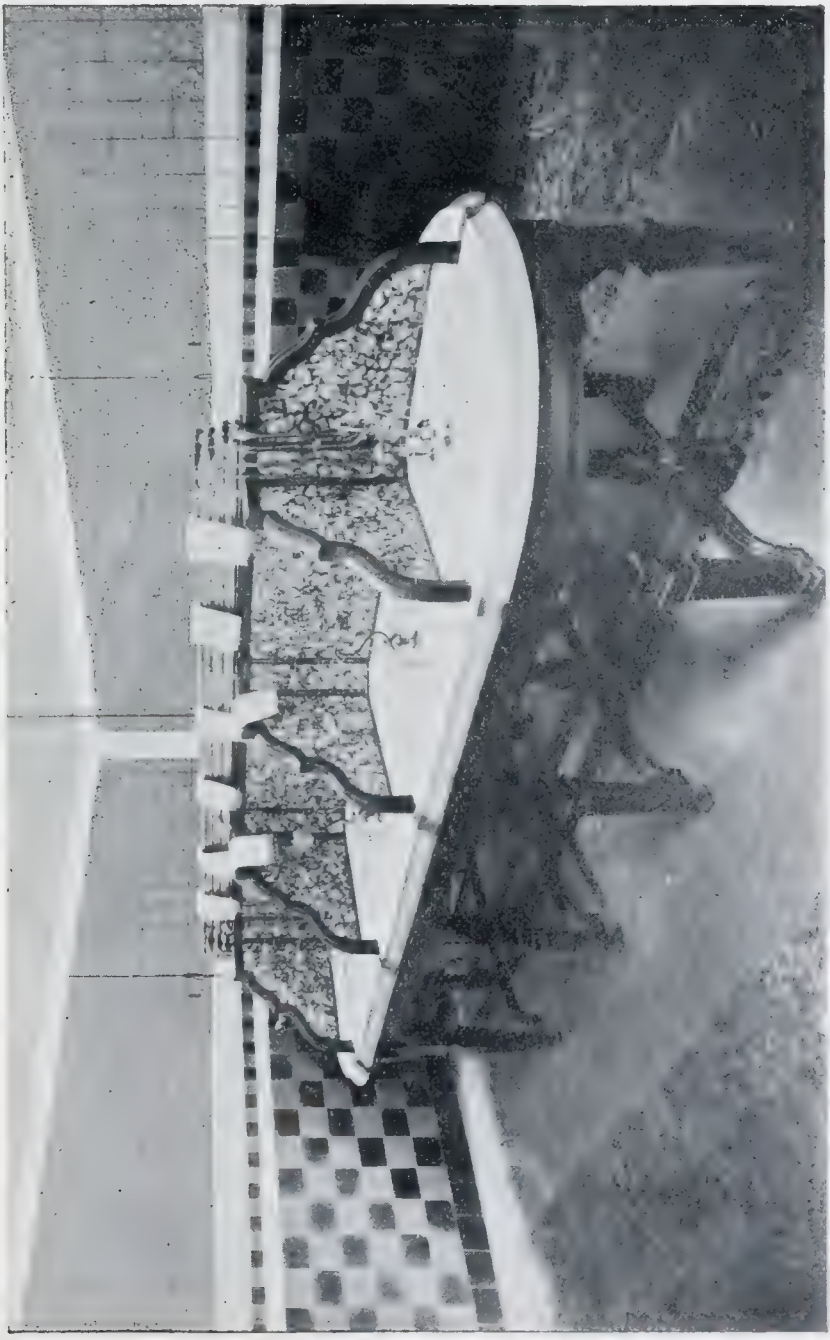
BOX VAPOUR BATH (for whole body).

is 110°. This appliance is frequently adopted in cases of acute gout ; the pain is not only relieved but the attack is shortened. In the same room is the general vapour bath, consisting of a wooden box with a round hole in

its moveable lid, so that the patient is entirely shut in with the exception of the head. The hot vapour rises and free perspiration soon ensues. Some of the subacute and chronic forms of eczema, in which bathing is forbidden, are treated by the natural vapour with admirable results ; and the same may be said as to cases of lichen, acne, psoriasis, and senile prurigo. In the last-named the intense irritation is often markedly relieved.

Medicated Baths are also employed, such as pine, sulphur, bran, oatmeal, and pumiline, the necessary ingredients being added to the Thermal waters. [The most important of these is the Sulphur Bath, given at the Old Royal or Hetling Baths, the use of which for skin cases is much resorted to.]

Since the publication by the "Lancet" of the foregoing description of the various Baths and appliances, the Corporation have decided to further extend the bathing system by the addition of Electric Baths. By the system adopted electricity is applied while the patient is immersed in the bath. An ordinary reclining bath is used, containing 150 *gallons of Mineral Water.*



HUMAGE ROOM, KING'S AND QUEEN'S BATHS.

HUMAGE ROOM.—In this luxuriously fitted apartment six apparatus are provided for Atomised Mineral Water, or other prescribed Water; also four apparatus for graduated douche, douching the throat, ear, eye, &c.

ATOMISED MINERAL WATER SPRAY.

As applied to the Eye in various forms of Ophthalmia and Iritis.

It is worthy of note that the late Sir Morell Mackenzie, when visiting Bath, spoke in terms of the highest praise o. this form of treatment for chronic laryngitis and certain other forms of throat disease.

Convenient and pleasant mode of treatment.

Suitable in any Chronic Throat Affection.

MEDICATED THROAT SPRAY.

Solutions of various medicines in the form of Spray are blended with the Mineral Waters and conveyed to all parts of the throat.

Highly beneficial results have been

secured by this mode of treatment.

EAR SPRAY.

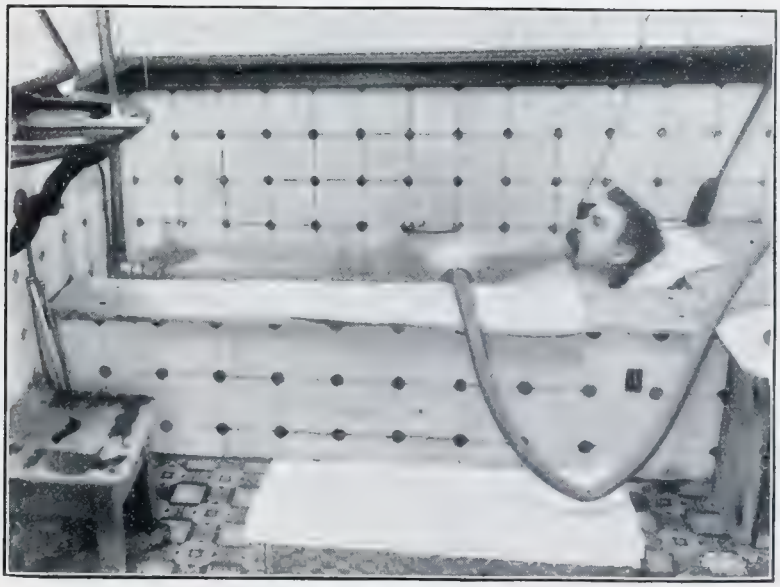
Suitable for Chronic Inflammatory Affections of the Outer and Middle Ear and for certain forms of deafness,

THE NAUHEIM SYSTEM.

AN important and valuable aid to cure has been introduced during the last few years at Bath in the form of the "Thermalsoolbader" or Nauheim system of bathing for various forms of disease, chiefly chronic diseases of the heart. The success which has attended the introduction of this system may be judged from the marked increase of bathers during the past few years, due in a measure to the treatment of large numbers of cardiac cases which were formerly prohibited the use of the bath and relegated sternly to water drinking or to a few careful massage douches. Two methods for imitating the Nauheim waters are adopted. In one of these, by means of an elaborate plant specially erected for the purpose, the cold natural water is ærated by carbonic acid at a considerable pressure. An ordinary reclining bath is employed, round the foot of which (at the bottom of the bath), and along the sides, for about three-quarters of its length, runs a perforated pipe through which is forced, at varying pressures, the ærated water. At the foot of the bath is the pipe through which the hot water enters. The bath holds 150 gallons, and the temperature of the water is usually 95°. The bath is so arranged that the warm current is delivered into the bath simultaneously with the gaseous solution, thus preventing a lowering of the temperature and protecting the patient against a cold under-current. A solution of one to three per cent. of common salt is added, and, when necessary, in order to strengthen the bath, one or two litres of the Nauheim "Mutterlauge," which is the mother lye of Nauheim, and contains chloride of calcium to the extent of 20 per cent. To prevent the patient

inhaling too much carbonic acid a spray of warm water plays just in front of the patient's face.

The second method adopted is to add to the thermal water, in an ordinary reclining bath, some chloride of calcium, and then to place Sandow's tablets at the bottom of the bath. A rapidly perceptible slowing of the pulse generally follows, with an increase of its volume, the methods adopted in either case contributing to form a bath which gives strength and



NAUHEIM BATH.

fresh vigour to the invalid. While a large percentage of the cases treated are those in which cardiac trouble exists, the system has also served for a considerable number of those atonic cases of gout and rheumatism in which, owing to the too highly stimulating properties of the hot water, its effect on the blood, highly charged with uric acid, with the kidneys not eliminating their effete material, has caused acute and sub-acute recurrences of troubles in the joints.

ELECTRIC HOT AIR BATHS.

(Greville System.)

The recent introduction of Electric Hot Air Baths (Greville System) for use in conjunction with the mineral waters has been attended with very gratifying results, particularly in cases of stubborn rheumatic and arthritic cases, where elimination of the poisonous matter which causes the trouble is often effected more

ELECTRIC HOT AIR BATH. FIG. I.

vigorously than by ordinary bathing. The Greville System is recognised as quite the safest form of administering dry heat, the apparatus being absolutely under control as regards the temperature, notwithstanding that a heat may be produced of from 400 to 500° Fahr. The ease with which it can be applied is also an advantage over all other hot air baths.

Provision is made for the treatment of whole or half body, or for local application, and letters in the visitors' book at the King's and Queen's baths, where the system has been installed, afford evidence of many remarkable cures which have resulted from its use in conjunction with the mineral douche, or an ordinary thermal course. The generators are designed especially for the part to be

ELECTRIC HOT AIR BATH. FIG. 2.

operated upon, the largest machine allowing of the introduction of both legs and the lower part of the body. Fig. 1 illustrates the mode of treatment for both legs, while Fig. 2 shows the perfect ease by which the apparatus may be applied to a leg or shoulder or other affected part.

SWIMMING BATHS.

IN addition to the baths and appliances already described there are large and admirably appointed mineral water swimming baths, which afford an agreeable form of bathing in conjunction with the Aix Massage Douche in cases where patients are ordered a free use of their limbs. The largest bath is at the "New Royal," the dimensions of which are 80ft. by 35ft., the depth of water being graduated from three to five feet. It is an exceedingly handsome bath, tiled throughout and lighted and ventilated by a glass roof 50ft. high. The temperature is maintained at about 84 by means of a constant flow of cooled mineral water. The bath is most conveniently placed, being on the same floor and immediately adjoining the gents' massage douche, or Grand Vichy room, affording opportunities for an immediate plunge following the douche. When filled the bath contains over 50,000 gallons. There are seventeen comfortably furnished dressing rooms, while hot towels and all toilet requisites are provided for bathers. Instruction in swimming is given by competent teachers, and the bath is reserved for ladies two days in the week. At the "Old Royal" is another fine bath, 62ft. by 23ft., and 4½ft. deep, containing 37,225 gallons.

NEW ROYAL SWIMMING BATH.

THE MEDICINAL USE OF THE WATERS.

EXTRACT FROM THE *Lancet*.

It is difficult to estimate the relative therapeutic values of drinking the waters and bathing in them, as the two methods are usually adopted simultaneously.

DRINKING THE WATERS.—When fresh, the water is clear and sparkling, without odour, and with a very slight saline chalybeate taste which is by no means unpleasant. The quantity to be taken is, of course, regulated by the physician. As a rule from half a pint to one and a half pints are ordered daily and this should keep the bowels in regular action. In certain forms of disease the Bath waters have been found most useful when taken cold, especially in surgical urinary conditions. In cases of cystitis the results are most encouraging, and here it may be mentioned that the waters are artificially ærated and sold under the name of "Sulis Water," which forms a palatable table water. Another peculiarity of the waters mentioned by one of the physicians which it is difficult to explain is that if patients are intolerent of iodide of potassium, if this drug is dispensed in solid form and added to the water at the time of drinking, larger doses can be taken and for a longer time than if prescribed in the ordinary way.

The action of the Bath waters when taken by the mouth has been deemed by most authorities to be simply due to drinking large quantities of hot water, so washing out the stomach and intestines and flushing the kidneys

and producing a marked diuretic effect. The beneficial action thus brought about is most marked in cases of gout and chronic gastric affections, this natural lavage being more pleasant than the use of the stomach tube. In connexion with these remarks the experiments recorded in our analytical report as to the solvent action of the waters on uric acid are suggestive. The waters contain a very small amount of iron, in a very assimilable form it is true, but it seems difficult to ascribe to this ingredient the benefit which anæmic patients undoubtedly derive from a course of treatment. It would seem more probable that the favourable result is to be ascribed to the regulation of the bowels, thus preventing the absorption of deleterious products due to detention of fæcal matter in the intestine.

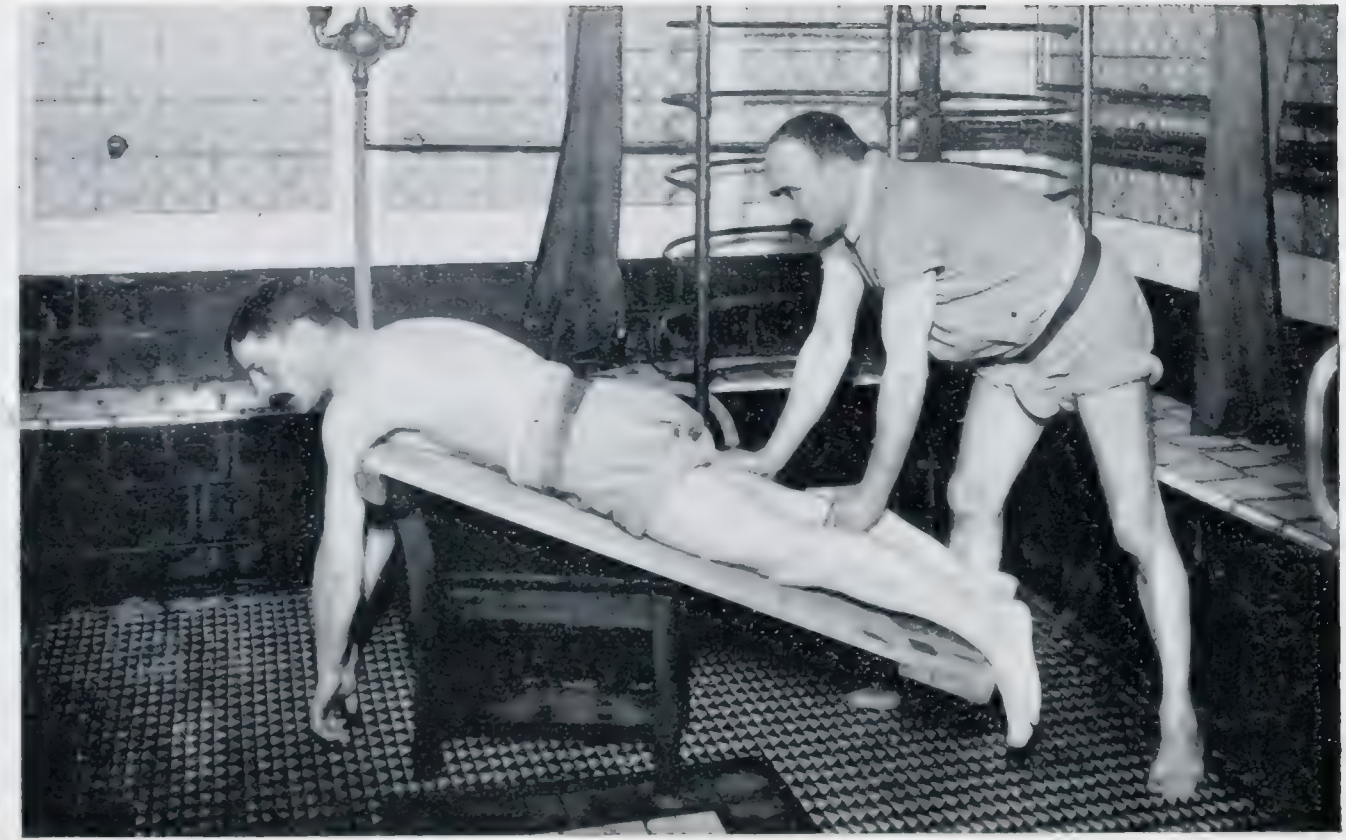
Deposit from Mineral Springs as formed upon the stone pillars in the overflow tanks at the Old Royal Baths.

DISEASES MOST FREQUENTLY TREATED.

EXTRACT FROM THE *Lancet*.

GOUT.—This disease occurring in widely-differing constitutions varies greatly in degree. Not every patient afflicted with the complaint will benefit by a visit to Bath, but the majority will, and those individuals who have unsuccessfully tried other English and continental spas need not be discouraged on that account from trying a course of thermal waters at that place. Dr. Luff* points out that owing to the undoubted fact that sodium salts are directly detrimental to the removal of gouty deposits those springs should be avoided which owe their activity to those salts when the removal of the deposits is the main object to be attained. The springs which contain no sodium salts or traces only are the ones suitable for such cases. A reference to the analysis of the Bath waters will at once show that they would come under this category. A course of treatment, also, tends to remove or relieve various disorders which stand in a more or less close degree of casual relationship to gout, such as gastric irregularities, gastric and intestinal catarrh, acidity, constipation, portal congestion, and certain urinary disorders. In the intervals between the paroxysms, much may be done in the way of massage and the use of the baths and local douches to remedy the inflammatory thickenings of the tissues, and the consequent articular stiffness, contraction of tendons, &c. In gouty dyspepsia it is recommended that the waters

* Gout; Its pathology and treatment.



IMPROVED DOUCHE CHAIR (as used at Bath). The position of the patient upon the board allows of perfect relaxation for massage of the gluteal, sciatic and lumbar regions.

should be sipped at a temperature of about 117° or higher, beginning with a small dose and rapidly increasing it. In the more chronic forms, besides the vapour baths, the deep and reclining baths, and the douches, the Aix massage bath is of great use, but much care must, of course, be exercised in applying massage. Patients must not be alarmed if the early part of the treatment precipitates an acute attack of gout. If such an event happens the use of the Berthollet vapour bath has been found to give relief. One of the local physicians stated that he had found considerable relief to be afforded by the use of the throat-spray in gouty pharyngitis. Undoubtedly part of the explanation of the benefit derived by the gouty from a course of treatment at Bath lies in the careful dieting and general adherence to physiological righteousness which are enforced on them by their medical advisers. Irregular forms of gout are as satisfactorily treated as the ordinary articular variety.

Chronic Rheumatism.—Treatment of all the various forms of so-called "chronic rheumatism" (chronic articular rheumatism, muscular rheumatism, senile arthritis, morbus coxæ senilis, &c.) yields satisfactory results, and patients convalescing from acute and subacute attacks are especially benefited. The waters are employed warm, locally or generally, either in the deep or reclining bath, with or without douching, when the patient is weak and as he becomes stronger the Aix massage, hot douching, and vapour baths may be used with massage and active and passive movements. The waters appear to have a soothing effect and greatly to alleviate pain. The massage given while in the bath has a powerful effect in lessening deformity and restoring pliability to the thickened and stiffened joints. The general vapour baths are also employed with success by causing perspiration and aiding

absorption, and the local vapour baths appear to soften the tissues around the joints and to enable them to be moved more freely. Muscular rheumatism, as a rule, will require the Aix massage douche, together with dry massage, and if these methods fail to give relief the Berthollet vapour bath and the massage reclining bath may be tried. Patients must not be discouraged if no effect is produced after the first few baths ; no satisfactory result is likely to ensue unless a course of from 12 to 15 baths be taken. The bath treatment is contra-indicated in acute rheumatism.

Gonorrhœal Rheumatism.—The treatment of this affection has also yielded satisfactory results. The patients, being usually young male adults, stand the Aix douche and other baths well. Copious doses of the water are usually prescribed, and a generous diet without stimulants is of importance.

Rheumatoid Arthritis.—This disease is singularly refractory to treatment. The statistics of the Mineral Water Hospital show that only 5 per cent. of the cases are cured, but that 80·7 per cent. are relieved, a lower percentage than is found in the case of gout or rheumatism ; but comparing these results with those in which the ordinary treatment is adopted, the thermal waters of Bath hold out hope to those who have not tried them. The course of baths is, of course, most satisfactory in the early stages. The advanced cases will naturally bring discredit to any spa, and if no relief is obtained by them the disease, not the waters, must bear the blame. Before great disorganisation of a joint has taken place, however, considerable improvement is possible, pain is relieved, and movement is increased. Immersion in the deep bath is first employed, and then wet and dry douching, the latter, however, being used

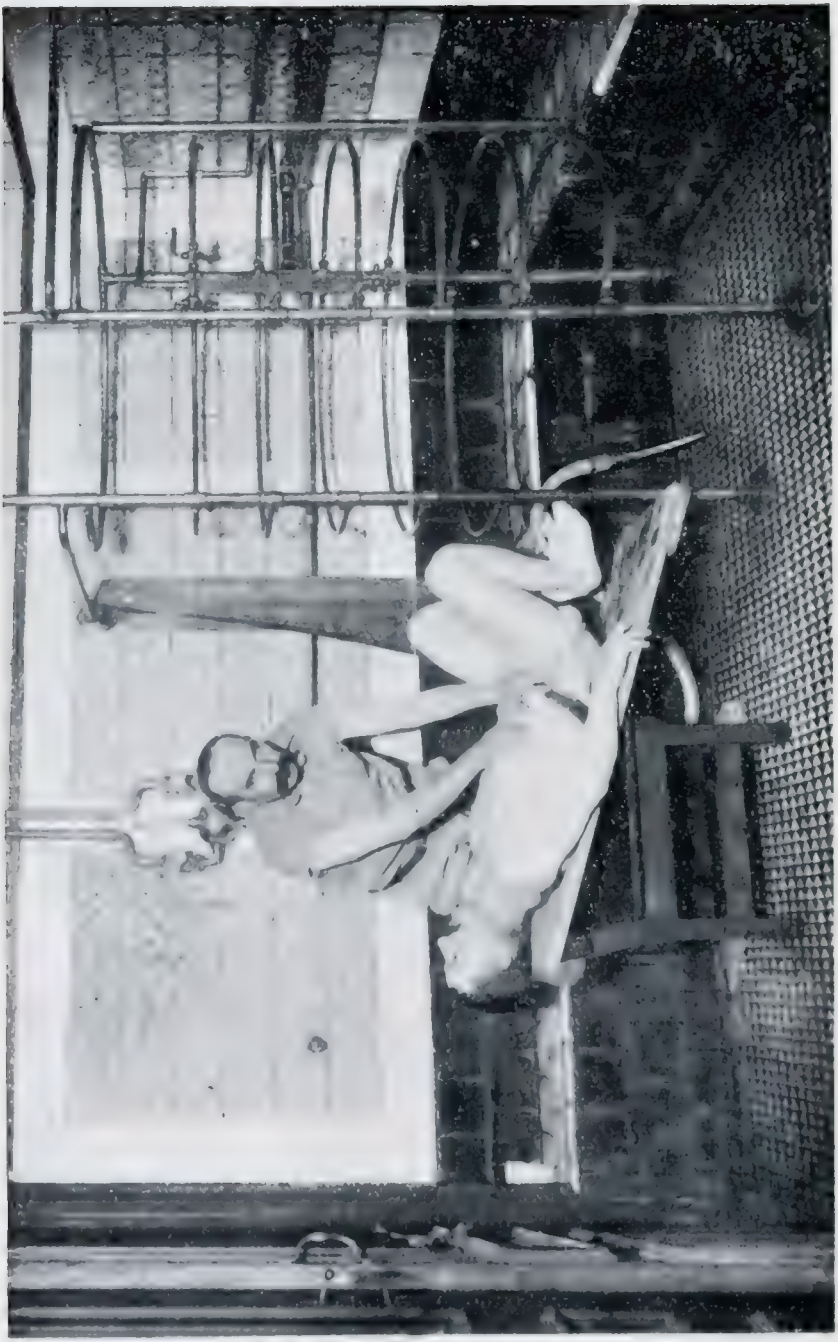
with much care. The value of the trained attendants is especially demonstrated in the treatment of this affection, the massage and shampooing combined frequently producing the best results. In the acute stages of rheumatoid arthritis the bath treatment is not suitable. The course is often a prolonged one and it is sometimes desirable that the baths should be suspended for a time, the patient, perhaps, leaving the city for a change, to return for further treatment.

Sciatica.—Great relief is often obtained from the deep baths with under-current douche. The local physicians speak with enthusiasm of their results. In the acute stages, however, the simple bath only can be borne.

Disorders of the Digestive Organs.—Dyspepsia, flatulence, and constipation are often much relieved, the result being partially due to washing out the stomach by drinking the waters, partially to the bathing combined with massage, and also to the dietetic regulations to which the patients have to submit. The enema baths are also frequently employed.

Anæmia.—This complaint has already been referred to when discussing the effects obtained by drinking the waters. In addition the tepid reclining bath with gentle massage is of advantage.

Syphilis.—Bath lays no special claim to the treatment of syphilitic conditions, but a course of baths is sometimes taken as an adjuvant to specific treatment, especially that of inunction. According to the experience of one of the physicians the baths, by promoting the action of the skin and the secretions generally, help the elimination of the drug and brace the system against its injurious effects. He has found that when the baths are taken during the administration of mercury the effect of



IMPROVED DOUCHE CHAIR (as used for abdominal massage).

its therapeutic action is increased. In the anæmia and prostration resulting from the long administration of the drug the waters will be found to act as an excellent tonic.

Diseases of the Skin.—Psoriasis, eczema, acne, and some other diseases of the skin are successfully treated. If the condition happens to be of a rheumatic or gouty origin the results are very good. Reclining tepid baths are generally first employed, the temperature being gradually increased, as also is the time of stay in the bath. Vapour baths are finally given. Prolonged immersion has been carried out to a limited extent only. Sulphur and other medicated baths are also used.

Diseases of the Nervous System.—Chorea, especially when associated with a rheumatic history, yields good results. The various forms of peripheral neuritis are also treated with advantage, as also are the after-results of hemiplegia and myelitis. Patients the subjects of tabes dorsalis also present themselves for treatment, and by the use of the reclining bath and the Berthollet vapour bath at 90° or 92° with the gentle spinal spray, the girdle and lightning pains are frequently considerably ameliorated. Cases of neurasthenia, too, improve under the use of massage and the stronger douches.

Diseases of the Respiratory System.—The water is used in a pulverised form for chronic bronchitis, asthma, bronchiectasis, chronic laryngitis, and pharyngitis, but it is commonly held that the treatment is most successful in respiratory affections dependent upon the gouty constitution. Various medicaments can be added to the sprays if desired.

Diseases of Women.—Various forms of these diseases yield satisfactory results, but the best are attained in interrupted or painful menstruation. The reclining baths are employed with local hot under-current douches to

the sacrum and lumbar and ovarian regions, whilst the ascending hot douche is also of service. Cases of leucorrhœa and cervical catarrh and induration also experience benefit. Chronic inflammation of the ovaries is sometimes relieved by reclining baths and the under-current douches.

Results of Injury.—Stiffness and pain as the results of injuries to joints are greatly relieved by the douches and massage.

Debility.—Convalescence from protracted disease or from acute affections may be accelerated by a course of treatment at Bath. Malarial cachexia is also benefited by the Berthollet vapour baths, but the explanation of this fact is obscure.

Contra-Indications.—It may be generally stated that the bath treatment should never be adopted in any disease during its acute stage. Tuberculous joint disease and pulmonary affections (with the exceptions already mentioned), derive harm rather than good. Patients suffering from any form of abscess or large open sores also, are not suitable for treatment. Epilepsy is also debarred, not only on account of the risk of an attack occurring whilst the sufferer is in the bath, but because experience has shown that the frequency of the attacks is increased. Some forms of heart disease improve under a course of baths, but when there is marked arterial sclerosis, advanced atheroma, aortic incompetency, or pronounced fatty degeneration of the heart, the baths must be used with the greatest caution, even if not altogether forbidden. Aneurysm of the aorta is also a direct contra-indication to their adoption.

THE CHEMISTRY OF THE THERMAL SPRINGS OF BATH.

With Analyses from the *Lancet* Laboratory.

The following important observations on the chemistry of the springs, with analyses, are also extracted in their entirety from the report of the *Lancet* special commission :—

The thermal springs of Bath are three in number. It is probable that they have a common origin, but the three outlets are perfectly distinct though they are within short distances of each other. The temperature of each varies slightly, but according to our own observations the hot spring which supplies the Old Royal Baths keeps nearer to the maximum—120° F.—than do the rest. The chemical composition of the waters is analogous, but there are some differences in the amount and ratio of the constituents of the three waters. The interesting question relating to the explanation of the formation and origin of the thermal waters is one with which it is hardly within our province to deal nor does it affect the general purport of this inquiry. It is interesting, however, just to glance at the speculations which have been offered on this point from time to time. Bath has afforded and still affords a happy hunting-ground for the palæontologist and geologist, every day almost witnessing the laying bare of fresh fossils and new geological evidences. The geology of Bath would appear to indicate that at some time in

COOLING ROOM KING'S AND QUEEN'S BATHS.

the history of the district a great volcanic convulsion and upheaval happened. This would account for the fact of the junction of two different geological formations in Bath, a fact which is invariably concurrent with the existence of hot springs. There is further evidence of some communication with marine sources judging from the beautiful specimens contained in the collection of Mr. J. W. Morris, F.L.S., who has made a special study of the sands, earths, and other substances deposited in the springs. The waters evidently course through long fissures and on their way probably come into contact with coal measures, for particles of coal are occasionally thrown up in the hot bubbling waters. This probably explains the occurrence of a small quantity of hydrocarbon gas which is found in the issuing gases. The source of heat is probably the subterranean heat of the earth's interior. At one time the waters may have been sulphuretted, but there is no evidence of this now, and further the gases contain an important amount of free oxygen. In this connection it is interesting to note that we have found excessive quantities of sulphur in some of the deposits taken from the Roman conduits. In these iron was found with, in some cases, a large portion of free sulphur.

In the analyses which follow every precaution was taken to secure a sample of water which could be regarded fairly as representing that which was flowing into the baths. This step was attended with a little difficulty owing to the substructure of the baths, but this was removed by the assistance cordially afforded by the authorities and officials of the Bath Corporation. In the case of the Old King's Well, for example, operations could not be started until the bath had been emptied, the water welling over from a tube sunk in the centre. In

the case of the Cross Bath a hole had to be cut in the stone floor of the bath in order to intercept a sample on its way from its natural outlet to the bath. In the case of the Royal or Hot bath this was not possible, but an opening was made in the road outside, and thus the stream was tapped before it reached the bath. At the same time the opportunity was taken of observing the temperature.

In addition to making analyses in some detail of the Bath thermal waters in the *Lancet* Laboratory a large quantity of the waters from the three springs was evaporated to dryness. About 30 gallons of the water were employed for this purpose and the operation was conducted in shallow pans on the spot. Thus several ounces of the salts of the Bath waters were obtained which enabled us to determine the presence, if any, of rare constituents. So far as we know and can gather the only analysis published of Bath water is that relating to the King's Well by Professor Attfield. Other investigators have analysed the same water, but we have extended our analytical inquiries to the other springs, the Royal Bath and the Cross Bath. An instructive and interesting comparison of the composition of the three distinct springs may thus be made. In order to ascertain the nature of the gases evolved the Cross Spring seemed best suited for the purpose of collecting the gas. As regards the chief constituents of the evolved gases an approximate analysis was made on the spot. A further supply was taken for more detailed examination in the *Lancet* Laboratory.

We next append the results of our Laboratory analyses in the following order:—(1) The Hot Spring or Old Royal Bath. (2) The King's Bath Spring. (3) The Cross Bath Spring.

THE HOT SPRING OR OLD ROYAL BATH.

Calcium sulphate	...	84·720 grains per gallon
Strontium sulphate	...	1·890 ,, ,,
Sodium sulphate	...	15·870 ,, ,,
Potassium sulphate	...	0·207 ,, ,,
Calcium carbonate	...	8·750 ,, ,,
Magnesium chloride	...	15·670 ,, ,,
Sodium chloride	...	13·120 ,, ,,
Lithium chloride	...	0·100 ,, ,,
Silica ...	...	4·200 ,, ,,
Bromine ...	...	Traces
Nitrates ...	...	,,
Carbonate of Iron	...	1·030 grains per gallon
Total mineral matters		144·557 ,, ,,

This spring supplies the Old Royal Baths, the Tepid Swimming Bath, Bellott's Hospital, and the Hospital Baths, which are free to patients recommended by the profession. The temperature was 118° F., the external temperature of the air being 45°. There was no evidence of organic pollution, the following figures being obtained when the water was examined after the manner of potable waters :—

Saline ammonia	...	0·0112 grains per gallon
Albuminoid ammonia	...	Nil

The water showed a very faintly alkaline reaction and possessed a slightly "dry" and "hard" taste. The walls of the bath give evidence of the separation of iron, and it may be remarked that on this account the iron in the analytical results is probably somewhat under-estimated. Spectroscopic analysis of the residue showed lithium clearly and also strontium ; their amounts are now placed on record, we believe, for the first time in this analysis. Bromine was just detectable in the residue from 30 gallons of water. On searching for evidences of arsenic none were gained, and no arsenic was found in a large quantity of the iron deposited. If arsenic were present it would probably occur in this deposit of iron.

COOLING ROOM, NEW ROYAL BATHS.

The King's Bath Spring.

Calcium sulphate	...	102·880 grains per gallon
Strontium sulphate	...	2·030 ,, ,,
Sodium sulphate	...	23·500 ,, ,,
Potassium sulphate	...	0·207 ,, ,,
Calcium carbonate	...	8·750 ,, ,,
Magnesium chloride	...	15·800 ,, ,,
Sodium chloride	...	9·080 ,, ,,
Lithium chloride	...	0·120 ,, ,,
Silica ...	...	1·960 ,, ,,
Bromine ...	...	Traces
Nitrates ...	...	,,
Carbonate of Iron	...	1·600 grains per gallon
Total mineral matters		165·927 ,, ,,

This is the old historic bath-spring from which probably the Romans derived their supply for the bath which has recently been excavated and brought to light by Major Davis, the terraces and columns being in a beautiful state of preservation. The spring supplies the King's and Queen's Baths, the new Royal Baths, the swimming bath, the Kingston Baths, the drinking fountain in the Grand Pump Room, the Mineral Water Hospital, and the public fountain in Stall Street. The above analysis agrees fairly well with that published by Professor Attfield. There appears, however, to be a diminution in the amount of common salt, but the sulphate of soda, as a constituent compensating for what constipating action the sulphate of lime may exert, is in the same proportion. The analysis shows the amounts of two constituents not previously recorded—namely, sulphate of strontium and chloride of lithium. Gases gurgle through the water, and it was here that Professor Dewar collected a large quantity from which, by the process of liquefaction by freezing at the Royal Institution, he succeeded in separating argon and helion. The former gas proved to be present to the extent of 140 parts per 10,000, and the latter in the proportion of 12 parts per 10,000. As

already stated, it was found inconvenient to collect the gases at this spring, the Cross Spring with which we deal next being selected for this purpose. The King's Spring is the most highly mineralised spring in Bath. The temperature of the water in the well was 114° F. As will be seen from the following figures there is no evidence of organic impurity :—

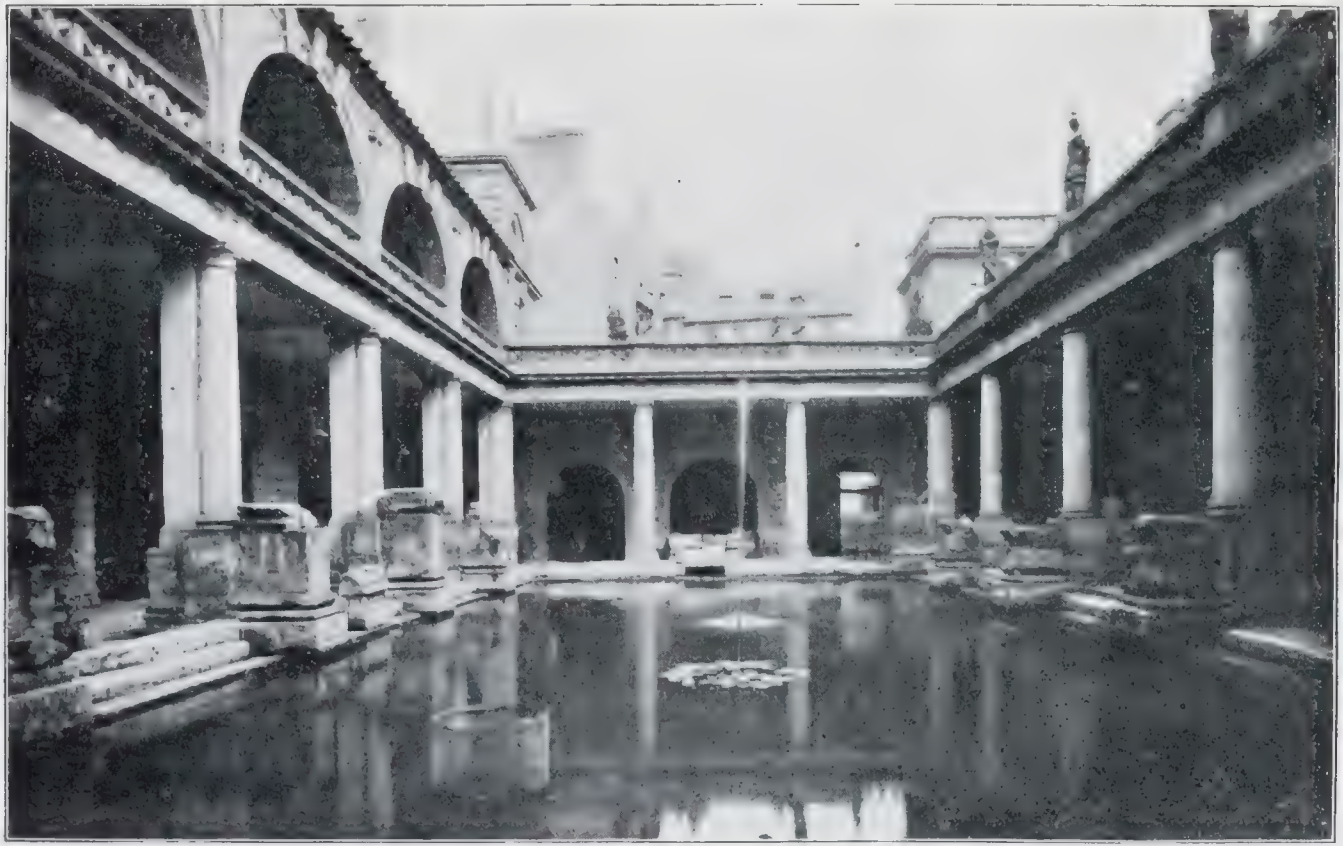
Saline ammonia	...	0·007	grain per gallon
Albuminoid ammonia	...	0·0042	,, ,,

The residue which was obtained on the evaporation of 30 gallons of the water yielded a minute quantity of bromide, and afforded the usual spectroscopic evidence of strontium and lithium. No trace of arsenic was detected in the water or in the deposits.

The Cross Bath Spring.

Calcium sulphate	...	86·360	grains per gallon
Strontium sulphate	...	1·120	,, ,,
Sodium sulphate	...	10·800	,, ,,
Potassium sulphate	...	0·207	,, ,,
Calcium carbonate	...	8·750	,, ,,
Magnesium chloride	...	15·630	,, ,,
Sodium chloride	...	13·150	,, ,,
Lithium chloride	...	0·187	,, ,,
Silica ...	...	2·100	,, ,,
Bromine ...	...	Traces	
Nitrates ...	...	,,	
Carbonate of iron	...	1·870	grains per gallon
Total mineral matters		140·174	,, ,,

This spring is used to supply the cheap public bath. In this bath doubtless a great number of historic personages have immersed themselves. The spring rises at a depth of 15 feet below the flooring of the bath, and the sample for analysis was obtained by boring a hole through this flooring. The temperature of the issuing water was 114° F., the temperature of the external air being 45° F. The water is in a chronic state of ebullition from the escape of gases. The bath is covered by a roof, and the



GREAT ROMAN BATH (present day) showing terraces above for promenading.

noise of the bubbling of gas is at times quite startling. It was here that samples of gas were taken and analysed approximately on the spot. The following were the results :—

ANALYSIS OF GASES (CROSS SPRING).

	Parts per 10,000.
No. 1.	
Carbonic acid gas	320
Oxygen	213
Nitrogen with argon and helion	9,467
	10,000
No. 2.	
Carbonic acid gas	160
Oxygen	160
Nitrogen with argon and helion	9,680
	10,000
No. 3.	
Carbonic acid gas	256
Oxygen	170
Nitrogen with argon and helion	9,574
	10,000
No. 4.	
Carbonic acid gas	395
Oxygen	457
Nitrogen with argon and helion	9,148
	10,000

Finally, a supply of gas was entrapped and brought to the *Lancet* laboratory for more detailed analysis. The results were as follows :—

Carbonic acid gas	220
Oxygen	120
Argon and helion	161
Nitrogen	9,499
	10,000

The argon and helion were obtained as a residue after "sparking" the gases in contact with potash. The spectroscopic features of both gases were well marked on passing the spark through a tube containing this gaseous residue after rarefaction by means of the mercury pump.

[*Copyright*] VIEW OF BATH (as seen from the roof of the New Royal Baths).

No attempt was made to separate the argon from the helion. It is interesting to note that the combined amount of argon and helion in the gases of the Cross Spring found by our Commissioners agrees very closely with that found by Professor Dewar in the King's Bath Spring by means of liquefaction and freezing.*

The quantity of mineral salts in the Cross Spring is decidedly below that of the other springs. In particular the sodium sulphate is comparatively small in amount, though the magnesium chloride, common salt, and carbonate of lime occur in similar quantity. Again, the Cross Spring showed rather more iron in solution. The examination of the residue from 30 gallons gave distinct indications by the spectroscope of strontium and lithium. Arsenic was not found in this residue or in the iron deposits. Bromine was again indicated. According to the following results there is no indication of organic pollution :—

Saline ammonia	...	0·0168 grain per gallon
Albuminoid ammonia	...	0·0056 ,, ,,

The water was clear and of a greenish hue, exhibiting a faintly alkaline reaction and possessing a peculiar taste.

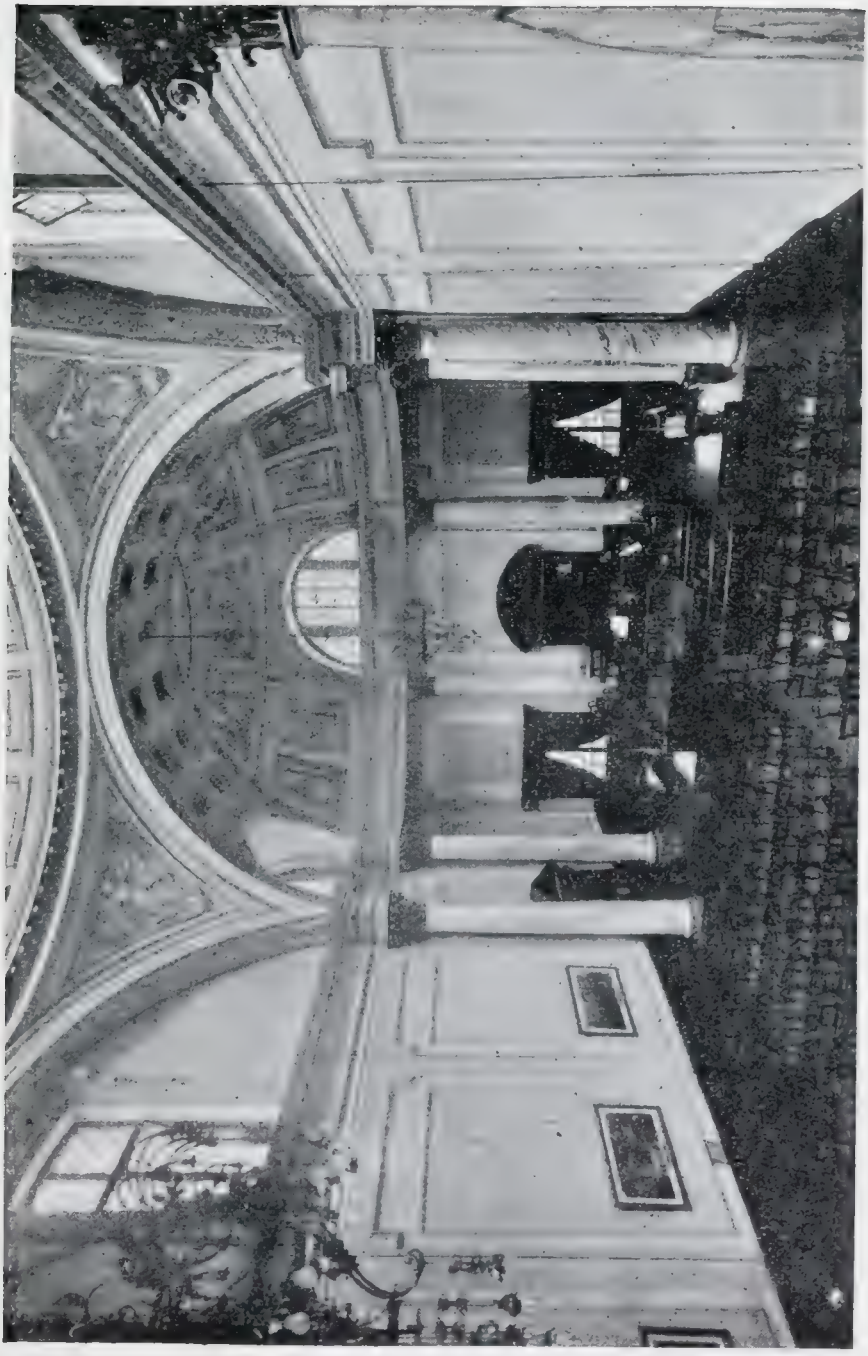
In conclusion, the characteristic constituents of the thermal waters of Bath are the sulphates of the alkalies and alkaline earths together with the salts of magnesium and sodium. Thermal waters having the origin of their heat in the earth's interior occasionally contain boric acid. The hot waters in Tuscany are a case in point, that district on this account having been the centre of the

* Professor Dewar is still engaged in the collection of these rare gases for experiments at the Royal Institution, and the illustration on page 27 shows the pipe by which the gases are conducted from the receiving chamber over the King's Bath spring across the Bath to a temporary laboratory which has been fitted up in the basement of the Queen's Baths.

EXTERIOR OF GRAND PUMP ROOM AND ROMAN PROMENADE.

production of boric acid on a commercial scale. The boric acid is supposed to be derived from boron nitride which in contact with water yields boric acid, nitrogen, and some ammonia. We failed to find the slightest evidence of boric acid in the Bath waters, although the disengagement of nitrogen gas suggests that it might be derived in a similar way. It is, of course, possible that borate of lime may occur in the deposited matters deep down in the spring. We could find no trace of copper in the water as reported by Sir Henry Roscoe though for this purpose we examined the salts from 30 gallons. The occurrence of argon and helion in the evolved gases is noteworthy. Neither gas is very soluble in water. Argon is soluble to the extent of four volumes per 100 volumes of water, so that it is about two and a half times as soluble as nitrogen and possesses approximately the same degree of solubility as oxygen.

At the temperature of the Bath waters, therefore, the amount of argon, nitrogen, oxygen, carbonic acid, and helion dissolved can be only small. The thermal waters of Bath exert a distinct solvent action on uric acid. In our experiments, for example, it was shown that Bath water dissolved over five times the amount of uric acid that distilled water would similarly take up at blood heat —i.e., just under 100° F. Since the waters are drunk hot and used hot for bathing purposes this fact may have an important relation to the therapeutics of Bath waters in the treatment of chronic gouty affections and rheumatism.



CONCERT HALL, ROMAN PROMENADE.

THE GRAND PUMP ROOM AND ROMAN PROMENADE.

NOT only does Bath claim to be abreast of all continental spas in the matter of the latest scientific methods of applying its healing waters, but it may justly challenge the world in regard to the luxury of the surrounding accommodation provided for its water guests. Invalids may be set down, if necessary, at the very door of the dressing room of the bath, the corridors in each establishment being sufficiently wide to admit Bath chairs, while in the case of the King's and Queen's Baths, visitors may pass from the elaborate cooling room into the Grand Pump Room, and on into the Grand Concert Hall and Roman Promenade without going into the open air. The Grand Pump Room, built in the Renaissance style, is a luxuriously furnished apartment of magnificent proportions. Erected in 1796 upon the site of the former Pump Room raised under the auspices of Beau Nash, it has for upwards of a century been the health and pleasure resort of an unbroken succession, not only of the sick and disabled, but of the lovers of society and music, and the votaries of the fashion of the hour. Here is the marble bar at which the drinking waters are dispensed, the room being set apart exclusively as a lounge for water drinkers, and supplied with the daily and illustrated papers. There are also here exhibited for the inspection of visitors, numerous and valuable relics of a past civilisation, recovered from time to time during

A VIEW ON THE TERRACE (overlooking Great Roman Bath).

excavations upon the site of the Roman Thermæ. The Pump Room was formerly used for the high-class concerts which are given daily from October to April, but during the last few years the extensive annexe known as the Roman Promenade has been erected, the features of which comprise a handsome concert hall, a spacious museum for sheltering the antiquities discovered on the site, and drawing and smoking rooms for visitors, while the great Roman Bath has been surrounded by a colonnade resting on the ancient piers, from which statues of Roman Emperors and Generals look down upon the identical scene where possibly the warrior forms they represent disported themselves close upon two thousand years ago. The new building is so constructed that no ancient work is really hidden, and while preserving the antiquities from exposure to the weather, affords opportunity also for an enjoyment and study of these wonderfully preserved evidences of a former magnificence with every facility of access and comfort. The Promenade has proved a great convenience to visitors during the winter season, affording as it does practically all the comforts and conveniences of a private club. It is rendered attractive by the best music, the talented orchestra being famed for its musical perfection, and visitors have the opportunity of subscribing for weekly, monthly, or annual tickets at reduced rates. The terraces afford accommodation for dispensing light refreshments and promenading, while in summer time delightful shade is found below on the Roman schola. The building was opened by H.R.H. the Duke of Cambridge, K.G., in October, 1897.

THE ABBEY, GARDENS, AND RIVER AVON.

OTHER IMPORTANT ADVANTAGES AS A HEALTH RESORT.

"Bath.—That beautiful City which charms even eyes familiar with the masterpieces of Bramante and Palladio."—*Macaulay.*

"We went to Bath where we could rest and be comfortable."—*Oliver Wendell Holmes.*

WHILE in the estimation of the ordinary seeker after health, the city's healing waters form its chief attraction and best right to fame, it is important to note that in the bestowal of those other natural advantages which contribute to the making of an ideal health resort, nature has been singularly lavish. Lying embosomed in a softly wooded amphitheatre of hills, which have an important effect in moderating the heat of summer, and in tempering the cold in winter, the city boasts a climate which is said to approach more nearly that of the Riviera than that of any other place in England, while its meteorological records show that there are few towns which can lay claim to so large a percentage of bright and genial winter days. In this respect alone the city has great claims upon seekers after health, and while invalids can obtain sheltered accommodation upon the lower levels, the residences upon the hills fully meet the wants of those in search of a more bracing climate. The considerable extension during recent years of what was once known as "the season" at Bath has been due largely to the old notion having been dispelled that the city is an excessively hot place in summer, and whereas a quarter of a century ago the period of

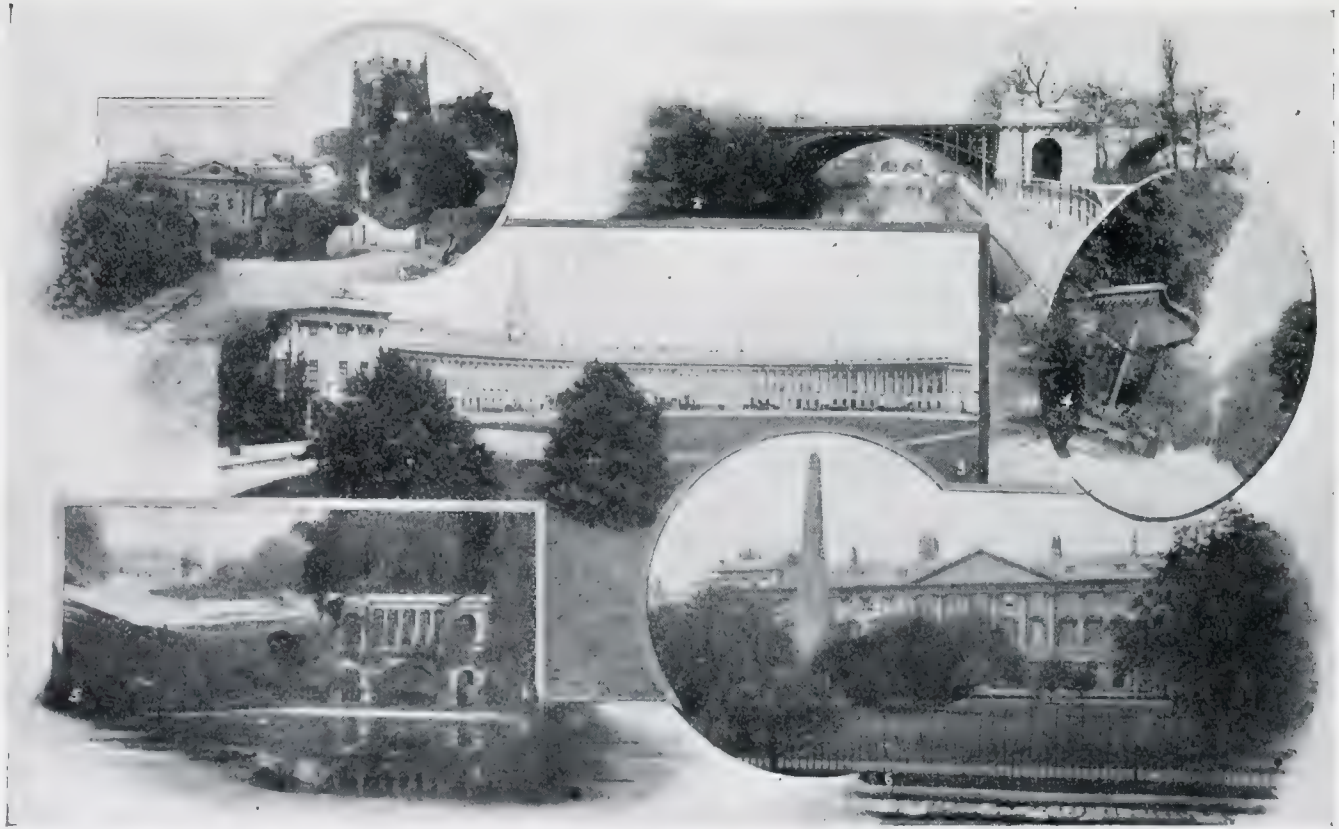
PEEPS IN THE VICTORIA PARK.

1—The Miller Vase. 2—The Lake. 3 and 4—Botanical Gardens. 5—Lake and Rustic Bridge.
6—Victoria Obelisk. 7—Bandstand, Lower Lawn.

"cure" was confined solely to the few winter months, now at no season of the year can the city be considered empty. That the waters are equally efficacious at any period of the year is proved by the fact that at the Royal Mineral Water Hospital where "fashion does not intrude" cures are effected equally well in summer as in winter. This considerable extension of what was formerly regarded as "the season," combined with the increasing popularity of the city as a health resort, has had the effect of greatly swelling the receipts of the bathing establishments, while the number of bathers have increased to 100,000 a year.

As evidence of the mild and equable climate of the city, it is worthy of note that comparison with the meteorological data of such places as Cambridge, Oxford, Greenwich and Gloucester, shows that Bath has a 5° lower maximum and a 5° higher minimum than those places; while during the recent hot summers it has been frequently observed that Bath has been cooler by many degrees than London and some of the other large towns. The average rainfall for the past 35 years has been 30·79 inches, while that the city is blessed with a goodly share of bright sunshine is proved by the fact that the records for the year 1900 show a daily average of four hours eight minutes. General observation will note that the Magnolia and Pomegranate survive the winters and flourish luxuriantly. The most prevalent winds are those from the N.W. Those from the S. and S.W. attain a maximum in winter. The N.E. winds are largely intercepted by the surrounding hills, which attain to elevations of from 600 to 800 feet.

Bath has been aptly described as the fairest of landscape cities. Its natural beauties, which soothed and charmed the spirit of Walter Savage Landor even after



1—Widcombe House and Church. 2—North Parade Bridge and Weirs. 3—Royal Crescent.
4—Bandstand, Sydney Gardens. 5—Prior Park and Palladian Bridge. 6—Queen Square.

a long residence in Florence, are still a constant theme of admiration among visitors, while the immediate neighbourhood possesses an almost endless variety of charming and romantic walks and drives, probably not surpassed by any other city in the kingdom. There is scarcely a spot even within the strict confines of the city from which glimpses of charming landscape are not to be obtained, while the surrounding heights command views of great loveliness and breadth. These are made easy of access owing to the excellent cab service which exists, while a variety of circular drives are obtainable through some of the most picturesque spots of the immediate neighbourhood at a very moderate tariff. The Special Commissioner of the *Lancet* in his report speaks of the invigorating air of the hills as a useful adjunct to a course of baths. The same writer also regards as an important consideration the convenience of approach to the bathing establishments, which are situated in the very centre of the city, in close proximity to the Abbey and other public buildings. The city is well supplied with hotels, some large and some small, some modern and some appealing to old-fashioned notions of comfort. There are also a large number of boarding and lodging houses, pleasantly placed and admirably appointed, while those seeking permanent residence can choose between a house in a crescent or row of the last century style, or the more recent villa type which has sprung up extensively in the suburbs. The numerous private hotels will also be found to afford all the comforts and conveniences of a private residence.

The opportunities for recreation within the city are both numerous and varied. The city has deservedly won distinction for the magnificence of its parks and pleasure grounds, chief among which is the singularly

BOATING SCENE ON THE AVON AT BATH.

beautiful Royal Victoria Park, named after Her late Majesty, who, as the Princess Victoria, opened it in 1830. Here and at the picturesque Sydney Gardens, which is the venue of the numerous floral fêtes for which Bath is famous, a military band plays daily from May till September, the Roman Promenade with its covered terraces and delightfully cool promenades affording welcome shelter for the holding of the summer concerts on wet days.

The Royal Victoria Park, already referred to, is probably the most beautiful domain of its kind in the kingdom. It covers an area of close upon 50 acres, and its well kept lawns, stately promenades, and ornamental plantations, are a constant charm to visitors. It also has a carriage drive a mile and a quarter in length. There are a number of other smaller but beautifully laid out parks and pleasure grounds, chief among which are the Institution Gardens on the North Parade, which are most centrally placed, near the Baths and Pump Room, and a favourite resort for visitors seeking rest and quiet.

In dealing with the numerous attractions provided for visitors, however, a foremost place must also be assigned to the famous Assembly Rooms, immortalised by Sheridan and Dickens, and the Theatre Royal. The former, probably still without a rival in the kingdom for the elegance of their design and magnificently proportioned interior, are the scene of the fashionable balls and other society functions, besides providing frequent high-class concerts and entertainments, while at the Theatre Royal, which has great traditions, some of the best of the travelling companies appear, the house being open ten months in the year. For boating, hunting, golf, cricket, lawn tennis, and the old-fashioned amusement of archery, the provisions are such as to provide infinite

VIEW FROM THE TERRACE, PRIOR PARK (Showing Palladian Bridge).

scope to visitors, while for those who prefer lettered ease there is the Royal Literary and Scientific Institution, with its fine library and geological museum. Nor should omission be made of the new Art Gallery, erected as a Diamond Jubilee Memorial, where a fine collection of paintings and other works of art are on view, and frequent loan exhibitions are arranged.

That Bath is a remarkably healthy city is shown by the low corrected death rate, which, taking the past five years, has averaged only 15·0 per 1,000. These figures are the more remarkable, when it is remembered that large numbers of persons seek retirement in Bath, and are, as it were, "born to the city," at advanced ages, a fact which has earned for the city the somewhat quaint appellation of "the cradle of old age." Among other important claims of the city as a place of residence, are its perfect sanitary arrangements and constant pure water supply, while the rates are low compared with those of most health resorts, the large amount of corporate property bringing annually to the city treasury a handsome revenue. Nor is it unimportant to mention that Bath is within two hours of London by the finest express service in the world, while the city is in direct communication with Birmingham and the whole Midland system, as well as with the south coast through Salisbury and Southampton, Weymouth or Bournemouth, and is on the railway high road to Bristol, Exeter, Torquay, and Plymouth.

THE ABBEY, FROM ORANGE GROVE.

SCHEDULE OF BATHS
IN THE VARIOUS ESTABLISHMENTS,

With the numbers denoting the Dressing Rooms, with particulars of the Baths and Medical Appliances.

Compiled by

CHAS. E. DAVIS, F.S.A., City Architect,

Architect to the New Queen's Baths and Designer of the various Modern Improvements to the Baths of Bath, and the Administration of the Water and Vapour.

KING'S AND QUEEN'S BATHS.

On the site of the Roman Thermæ destroyed A.D. 577, re-established 7th century, enlarged A.D. 1235, 1575, 1664, 1750, 1788, 1859, and in 1888 and 1889 greatly enlarged and re-modelled at an expenditure of £20,000.

The Dressing Rooms are numbered consecutively in the various establishments.

Ground Floor.

1. 2. 3. Thermal Box Vapour and Graduated Douche for whole body treatment; also Berthollet Apparatus for local application of the vapour to arm, leg, shoulder, &c.

4. Private Bath, communicating with King's Bath, temperature from 90° to 100°. Powerful Hot Douche.

5. Reclining Bath.

6. Reclining Bath.

7. Private Bath, communicating with King's Bath, 90° to 100°.

8. Reclining Bath, with powerful Hot Douche, and Private Bath, communicating with King's Bath, 90° to 100°.

9. Local Douche, Hot and Cold.

10. Private Bath, communicating with King's Bath, 90° to 100°.

11. Private Bath, communicating with King's Bath, 90° to 100°.

The King's Bath is filled direct from the Springs, temp. 116°.

12 to 19. Greville Electric Hot Air Baths, with apparatus for application to whole body, half body, hip, stomach, leg, arm, shoulder, hand, knee, and foot ; also lumbar and spinal generators, and delicate apparatus for application to the throat, ear, eye, and nerve centres. In connection with this bath are a Circular Needle Douche, and Rose Douche, which may be cooled by cold spring water to 50°. Dry local massage may also be given if desired.

20. Reclining Bath with Graduated Douche, Shower and Feather Douche, Graduated Enema or Lave. This bath can be medicated if desired.

21. Regatz Reclining Bath, Graduated Douche and Shower.

22. Regatz Reclining Bath, Graduated Douche and Shower, Graduated Sitz Douche. In this bath the water is cooled by cold mineral water, so that a Douche, &c., can be given as low as 60°, or graduated to that temperature.

23. Regatz Reclining Bath, Graduated Douche and Shower. In this bath the water is cooled by cold mineral water, so that a Douche, &c., can be given as low as 60°, or graduated to that temperature.

Also an Aix Bath for massage, with one or with two attendants; Feather Douche and Graduated Douche.

24. Reclining Bath, with hydraulic power attached to a lift for placing the patient in the bath and lifting out again, with Graduated Douche and Feather Douche. In this bath the water is cooled either by cooled mineral water or cold spring, so that a Douche or Scottish Douche can be given as low as 50°, or graduated to that temperature. The bath is centrally placed for massage, and enclosed in curtains for the Douche.

25. Reclining Bath, with Graduated Douche and Shower, Graduated Enema or Lave.

First Floor.

(*On the same level as the Grand Pump Room.*)

26. Deep Bath (depth of water 4ft. 6in.) with Hot Mineral Douche, *sub aquas*. A private w.c.

27. Reclining Bath, with Graduated Douche. This bath is used as a Thermalsoolbader or "Nauheim" Bath, the mineral water being ærated with carbonic acid at a considerable pressure.

28. Local Douche, with Graduated Douche.

29. Deep Bath (depth of water 4ft. 6in.), with Graduated Douche, Shower and Feather Douche. This bath can be used for Douche (as at Vichy)
30. or *sub aquas*, provided also with cold spring water, so that a Douche can be given as low as 60°, or graduated to that temperature.

31. Deep Bath (depth of water 4ft. 6in.), with Graduated Douche, Shower and Feather Douche. This bath can be used for Douche (as at Vichy) or *sub aquas.*
32. Also a Sitz Bath with Enema and Needle Bath ; all of these graduated.

33. Large Deep Bath (depth of water 4ft. 6in.), with Graduated Douche and Shower. This bath can be used for Douche (as at Vichy), *sub aquas.*
34. Provided with hydraulic power attached to a lift for placing the patient in the Bath or lifting out again. No. 34 has a private w.c.

35. Regatz Reclining Bath, Graduated Douche and Shower, Graduated Enema or Lave, Graduated Sitz Douche.

36. Large Deep Bath (depth of water 4ft. 6in.), with Graduated Douche.
37. Shower and Douche. This bath can be used for Douche (as at Vichy), or *sub aquas.*

38. Reclining Bath, Graduated Douche and Shower. This bath is used as a Thermalsoolbader, or "Nauheim" Bath, the mineral water being ærated with carbonic acid at a considerable pressure.

39 with 36. Aix Douche Room, with one or two attendants for massage. Two Graduated Douches and Graduated Shower.

40. Reclining Bath, with Graduated Douche, Shower and Feather Douche, with Lumbar Spray in the bath.

41. Regatz Reclining Bath, with Graduated Douche, Shower and Feather Douche.

42. Humage Room. Six separate apparatus for atomizing liquid by the assistance of steam *(pulverateurs à vapeur)*. Bath Mineral Water, or other prescribed water or liquid, can be administered in these apparatus for douching the throat &c. ; also four apparatus for Graduated Douche, mineral water of any temperature down to 50°, regulated by a thermometer attached. In one of these instruments the atomizing is produced by the water being thrown off from a heated plate as at Baden Baden. Instruments for spraying the ear, eye and throat, can be fitted to these instruments. In this room are also fitted apparatus for exercising the arms or legs.

43, 44, 45, 46. The Aix Douche Room (No. 46) is set apart for gentlemen. Two Graduated Douches and Graduated Feather Douche, with two attendants for massage. Also Graduated Needle Douche and Graduated Spinal Douche. Arrangement is made for an Electric Douche, but the battery must be provided by the bather. The dressing rooms are 43, 44 and 45.

47, 48, 49. Aix Douche Room (No. 49) is set apart for ladies. Two Graduated Douches and Graduated Feather Douche, with two attendants for massage. Also Graduated Needle Douche and Graduated Spinal Douche. Arrangement is made for an Electric Douche, but the battery must be provided by the bather. The two dressing rooms are 47 and 48.

50. } Aix Douche Room (used as required for ladies or
51. } for gentlemen). Two Graduated Douches, a Graduated Feather Douche and Shower, with one or with two attendants for massage.

52. Cooling or Waiting Room, supplied with daily and illustrated papers.

OLD ROYAL BATHS.

(West end of Bath Street).

Erected 1778 on a portion of the Roman Thermæ, the situation in mediæval times of a Leper and Hot Bath. Enlarged 1839-1883, and fitted with the most modern appliances 1889.

53. Reclining Bath as at Buxton. Graduated Douche and Shower.

54. } Deep Bath, 4ft. 6in., with Graduated Douche and
55. } Shower.

56. Combined Local Hot and Mineral Douche, with Needle Douche and Shower. A Sulphur Douche may also be given if desired.

57. } Deep Bath, 4ft. 6in., with Hot Mineral Douche.
58. } This bath can be used for Douche (as at Vichy), or *sub aquas*. Also provided with a crane chair for lowering or raising the invalid into and from the bath. An Enema in connection with 58.

59. Deep Bath, 4ft. 6in., Graduated Douche and Shower, with *sub aquas* Douche. An Enema in connection with the Dressing Room.

60. Reclining Bath. A Graduated Shower and Douche of Mineral water 105°.

61. Deep Bath, 4ft. 6in. Graduated Douche or *sub aquas*, with shower.

62. Deep Bath, 4ft. 6in. A Graduated Douche, *sub aquas* if desired (or as at Vichy).

63. Deep Bath, 4ft. 6in., with Graduated Douche, or *sub aquas* if desired.

64 to 72. Dressing Rooms of Tepid Swimming Bath, Shower and Cold Spray.

73. 74. Reclining Bath, with Graduated Douche, Feather Douche and Shower. This bath is also an Aix Douche for ladies, with one attendant for massage.

75. Reclining Bath. Local Vapour, or for the whole body within a confined area.

Cooling Room.

76. 77. Two Dressing Rooms to the large Free Invalid Bath. In one Dressing Room is a Local Graduated Douche, and in the Lobby of the Bath a Hot Mineral Shower.

CROSS BATH.

Erected on a portion of the Roman Thermæ, possibly in the 8th Century—records mention it in the 12th Century. In the 17th and 18th Century this was the fashionable bath.

Re-erected A.D. 1797, altered 1858, enlarged 1887 and 1888.

This establishment contains a Swimming Bath (now a cheap public bath), with numerous Dressing Closets.

NEW ROYAL BATHS.

(*Opposite the Grand Pump Room*).

Built 1870, enlarged 1885, and fitted with the most modern appliances 1889.

88 and 89. Deep Bath, 4ft. 6in., with Graduated Douche (as at Vichy, if required), and Shower, Hot Mineral Douche, *sub aquas*.

90. Deep Bath, 4ft. 6in., with Graduated Douche (as at Vichy, if required), Hot Mineral Douche *sub aquas*.

91. Deep Bath, 4ft. 6in., with Graduated Douche (as at Vichy), Hot Mineral Douche, *sub aquas*.

92. This room is set apart as an Aix Douche, with one or two attendants for massage. Graduated Needle Douche.

93. Reclining Bath, with Graduated Douche, Shower, and Feather Douche ; also *sub aquas* if desired. This bath is also used as a "Thermalsoolbader" or Nauheim Bath.

94. Aix Douche Room for ladies with Needle, Spinal, Feather, and Graduated Douche, and one or two attendants for massage. Also Regatz Reclining Bath.

95. Reclining Bath, Graduated Douche, and *sub aquas* Douche. This bath is also used as a "Thermal-soolbader" or Nauheim Bath.

Ladies' Cooling Room, Gentlemen's Cooling Room and Smoking Room.

96 to 113. Dressing Rooms to the Tepid Swimming Bath on floor below.

114. 115. Grand Vichy Rooms, with Reclining Bath, Sitz Bath and Shower, and Lumbar, Spinal, Needle, Scottish and Feather Douches, all Graduated. Also Aix Douche, with massage for gentlemen.

116. Local Douche, Graduated Douche, Needle and Feather Douche, with cooled Mineral water or Spring water to 50°, or graduated to that temperature. A Sulphur Douche may be given if desired.

117. Deep Bath, 4ft. 6in., Graduated Douche (as at Vichy, if required), and *sub aquas* Douche. Spring water to the Graduated Douche or cooled Mineral water.

118. Deep Bath, 4ft. 6in., Graduated Douche (as at Vichy, if required), with Shower, Enema, or Lave. All can be cooled with Spring water or cold Mineral water to 50°, or graduated to that temperature.

119. Deep Bath, 4ft. 6in., with invalid hydraulic chair, Graduated Douche (as at Vichy, if required), and Feather Douche, cooled down, if required, by Mineral or Spring water. Also Hot Mineral Douche *sub aquas.*

KINGSTON BATHS.

(*East side of Roman Promenade*).

Erected on a portion of the Roman Thermæ in the 18th Century by the Duke of Kingston.

Three large deep baths, 4ft. 6in., for gentlemen, each with two private dressing closets. This establishment also has a small cooling room.

It is not unimportant to mention that there is a well equipped laundry in connection with the bathing establishments, at which the whole of the linen used at the baths is dealt with. It is fitted with the most modern machinery.

APPENDIX.

HOTELS, BOARDING AND LODGING HOUSES.

CASTLE HOTEL, BATH.

The Oldest Established and most Central for Families, Private and Commercial Gentlemen.

JOHN RUBIE, PROPRIETOR.

CULLEN'S PRIVATE HOTEL AND FAMILY BOARDING HOUSE, MANVERS STREET, BATH.

This Establishment is most comfortable and convenient for Visitors taking the Hot Mineral Waters, being on level ground, and within three minutes' walk of the Baths and Grand Pump Room.

It is pleasantly situated, close to the Abbey, St. John's (R.C.) Church, the Royal Institution and Public Gardens.

Table d'Hôte 7 o'Clock.

Moderate inclusive Terms for Board and Residence. Tariff and Testimonials sent on application. Near G.W.R. Station.

EMPIRE HOTEL, BATH,

Under the same Management as BAILEY'S HOTEL, LONDON.

Open Season 1901.

This Hotel, which is rapidly nearing completion, is a magnificent elevation, with terraces commanding lovely views of the City and surrounding hills. It will afford accommodation for about 200 visitors and contains a number of handsome public rooms.

FRANCIS'S HOTELS,

7, 8, 9, 10, 11, 25 & 26, QUEEN SQUARE,
13, 14 & 15, BENNETT STREET, BATH.

FOR FAMILIES AND GENTLEMEN.

This Hotel is most centrally situated in the most beautiful part of the City, near to the Baths and Pump Room, and within easy distance of all places of amusement.

Billiard, Smoking and Recreation Rooms.
Inclusive Terms. Electric Light. Tariff on application.

MR. & MRS. E. PONTER, PROPRIETORS.

GRAND PUMP ROOM HOTEL, BATH.

This High-Class Family Hotel is situated in the centre of the City, immediately opposite the Abbey Church and the Roman Baths, and connected with the finest suite of Baths in Europe. The Hotel is replete with every accommodation, and furnished with due regard to modern ideas of comfort and refinement.

The Public Rooms are lit by Electricity.

There is a Passenger Lift to each floor, which is in direct communication with the Baths attached.

Telegrams : "Grand, Bath."

Under the personal supervision of the Lessee,
Mrs. E. RADWAY.

LANSDOWN GROVE HOTEL, BATH,

Stands in its own pleasure grounds, commanding extensive views, being 400 feet above sea level, South aspect, ten minutes only from centre of the City. Lawn Tennis. Excellent Stabling. Passenger Lift. Electric Light. Omnibus to and from City free to visitors

Tariff *from* £3 13s. 6d per Week inclusive, according to situation of Bedroom.

Further particulars, please apply

WM. JACKMAN, MANAGER.

THE PULTENEY HOTEL, LTD., BATH.

Has recently been greatly enlarged and fitted with every modern convenience. Passenger Lift. Electric Light throughout.

The Hotel is close to the Baths and Pump Room, and within easy distance of all places of amusement and interest. South aspect.

Tariff from £3 13s. 6d. per Week inclusive, according to situation of Bedroom. Tariff on application.

WM. JACKMAN, MANAGING DIRECTOR.

WALDRON'S PRIVATE HOTEL, QUEEN SQUARE.

Situate near Park and Mineral Baths, the most convenient and pleasant position in Bath.

INCLUSIVE TERMS.

Two Persons occupying same Room, 4 to 7 Guineas per Week.
Single Room, £1½ to 4 Guineas per Week; Per Day, 7s. 6d. to 12s.
Servants' Room and Board, 5s. per Day.

PRIVATE ROOMS.

Suites, comprising Sitting-Room, Bedroom and Dressing Room, 7s. 6d. to 15s. per Day.
Meals by arrangement or at Table d'Hôte.

Telegraphic Address: "Waldron's Hotel, Bath." *Telephone 01105.*

CHRISTOPHER HOTEL (Commercial).—Pleasantly and centrally situated, close to Abbey, Guildhall, and Mineral Water Baths. Within five minutes' walk from G.W. and M.R. Stations. Omnibus meets Trains.

EDGAR PRIVATE HOTEL, 2 and 3, LAURA PLACE.—Situate in the salubrious parish of Bathwick. Within 5 minutes' walk of the Baths and Pump Room. Combines all the comforts of home. Telephone 25

EGREMONT HOTEL, YORK STREET.—Within sight of the Baths. Home Comforts, combined with Moderate Charges. Bus passes the door. Terms on application. Mrs. Benbow, Proprietress.

HARRIS'S PRIVATE HOTEL, QUEEN SQUARE.—High-class Private Hotel, most pleasantly situated in best part of city. Fully Licensed, and under the personal superintendence of Proprietor and Proprietress.

REED'S PRIVATE HOTEL, 10, PARAGON.—Close to principal Shops, Baths, and Parks. Terms from 1½ guineas. First-class Cuisine and Attendance.

APARTMENTS 12s. per week, or Board with use of Sitting-Room, from 15s. Quiet neighbourhood, near Park and Mineral Baths. Mrs. Doel, 6, New King Street.

APARTMENTS from 12s. per Week, also Board if required. Near centre of City and Hot Mineral Baths. Apply T. Reynolds, New King Street House.

BROCK STREET, No. 27, Near Victoria Park.—Apartments, 3 Rooms Ground Floor, £2 per Week; Drawing Room Suite (5 rooms), £4 Weekly. Proprietor, Henry Ford.

CIRCUS HOUSE.—2 Drawing-Rooms, 3 or 4 Bedrooms and Dressing-Room, terms 3 to 5 Gs.; Dining-Room, 2 Bedrooms and Dressing-Room, 2 to 3 Gs.; Smaller Suite from 2 Gs Misses Jackson and Parker.

CIRCUS, No. 30.—Apartments Ground Floor: 2 Bedrooms 1 Sitting-Room, 3 Guineas; Drawing-Room Floor: 3 Sitting-Rooms, 3 to 5 Bedrooms, 5 Guineas. Board if required. Proprietor, R. Abell.

COMFORTABLE APARTMENTS.—Sitting-Rooms with 1 or 2 Bedrooms, Dining-Rooms communicating. 4, Charlotte Street, Queen Square.

COMFORTABLY FURNISHED DRAWING AND DINING ROOMS.—One or more bedrooms. Fine open country view. Central. Home comforts. Moderate Terms. Mrs. Oakley, Glanrhyd, 8, Paragon.

COMFORTABLE WELL-FURNISHED APARTMENTS.—Open, Sunny Position, on a level and within 5 minutes' of Baths and Pump Room. Good Cooking and Attendance. Mr. and Mrs. Blythe, 2, South Parade.

CULLEN'S FAMILY BOARDING HOUSE, MANVERS STREET.—Three minutes' walk from Baths. Highly recommended. Moderate inclusive Terms Tariff on application. Table d'Hote 7 o'Clock.

DRAWING, DINING, AND TWO BEDROOMS.—Use of Bath-room (Hot and Cold Water). Terms, 2½ guineas per week. Miss Roach, 2, Lansdown Terrace, near Camden Crescent.

DRAWING-ROOMS FURNISHED.—No other lodgers. Terms 30s. a Week, less for permanency. Near Mineral Baths. Apply Mrs. Wood, 3, Johnstone Street.

DUKE STREET, No. 4, South Parade.—Furnished Apartments within 5 minutes' Walk of Baths and Pump Room. Good cooking and attendance. Terms Moderate. Proprietress, Miss Uphill.

DUNSTAN HOUSE, NORTH PARADE.—Private Boarding House, under supervision of Hospital trained nurse, near Baths. Inclusive terms from 30s. per Week. Private apartments if required.

FIRST-CLASS APARTMENTS.—Good Cooking and attendance. Board if required. Lovely open view. Terms on application to A. Baker, 73, Pulteney Street.

FURNISHED APARTMENTS.—Near Baths and Great Western Railway. Good Cooking and Attendance. Mrs. West, 7, Pierrepont Street.

FURNISHED APARTMENTS.—Drawing or Dining Rooms, 3 Rooms on the Ground Floor, near Abbey and Baths Good Cooking and attendance. Mrs. Martin, Pierrepont House, South Parade.

KINGSTON BUILDINGS, No. 10, Near Abbey Church.—Apartments, Board inclusive, 15s. to £1; without Board, 10s to 12s. Mrs. Mansbridge, Masseuse.

MARCHANT'S PRIVATE APARTMENTS, 51 and 72, PULTENEY STREET.—Board if required. Central, on level ground, and near Abbey and Baths. Terms on application.

NORTH PARADE, No. 12.—Near Abbey and Bathing Establishments. Drawing and Dining-Rooms. Excellent Cooking. Terms on application.

PRIVATE BOARDING HOUSE (Detached), 20, VINEYARDS.—Pleasantly situated near Park. Good Rooms, every accommodation. Bathroom. 21/- weekly. Private rooms if required. Highly recommended.

PULTENEY BOARDING HOUSE (10, Pulteney Street).—First Class Accommodation for Visitors and Tourists. Good and Liberal Table. Moderate Charges. Proprietor, F. Parker.

PULTENEY STREET, No. 41.—Near Abbey, Pump Room and Mineral Baths. Private Sitting-Rooms. Good Cuisine. On level ground. Six minutes from either Station. M. Skidmore.

SITTING-ROOM AND BEDROOM.—Extra Room at top of house if required. Two Rooms, 30 -; Three, 35 -; no extras except Gas and Coal. Good attendance. Mrs. Lambert, 9, Burlington Street.

SUPERIOR FURNISHED APARTMENTS.—Pleasantly situated, within easy reach of Baths, Parks, &c. Good Cooking and Attendance. Moderate Terms. Excellent Testimonials. Mrs. Tyte, 24, Bennett Street.

UPPER CHURCH STREET, Nos. 2 and 3.—Near Park and Royal Crescent. Apartments Personal supervision. Mrs. A. Paddew, Proprietress.

WELL FURNISHED DRAWING ROOM APARTMENTS.—With 3 or 4 Bedrooms. Good Cooking and Attendance. Terms Moderate. Apply Mrs. J. Weston, 27, Pulteney Street, Bath.

SCALE OF CHARGES.

NEW ROYAL BATHS (First Class).

(Adjoining Grand Hotel.)

Open from 7 a.m. till 7 p.m. -SUNDAYS till 9.30 a.m.

		s.	d.	Fee.			s.	d.	Fee.
1	Deep Bath	2	6	3d.	3	Reclining Bath ..	2	0	3d.
2	Chair Bath	2	6	3d.	4	Local Douche ..	2	-	3d.
5	Deep or Reclining Bath with Douche or Shower						3 - &	2	6	3d.
6	Rose or Needle Douche (with Local Douche)..						2	6	3d.
7	Ladies' Special Douche						1	0	3d.
8	Local Massage given in a Reclining Bath						1	0	3d.
9	Massage Douche (Aix-les-Bains system) 1 doucheur.. ..						2	9	3d.
10	Ditto Ditto (for ladies) 2 doucheurs ..						3	6	6d.
11	Ditto Ditto with Circular Needle Douche 6d. extra.								

Attached to these Baths is a First-class Mineral Water SWIMMING BATH, Temp. 84°. For LADIES, Mondays and Fridays.

Private Room, for one lady 1/-, fee 1d. Ditto, for two ladies, 1/6, fee 2d.
Ditto, for three ladies, 2/-, fee 3d.

This Bath is available for GENTLEMEN at 1/- each. Fee 1d.

Tuesdays till 12 noon. Wednesdays, Thursdays and Saturdays, Summer till 9 p.m. Winter till 7 p m. Sundays till 9.30 a.m.

Two Children, under 12, using the same Private Room pay as one adult.
A child bathing with its parent occupying same Room pays 6d. and fee 1d.

KING'S AND QUEEN'S BATHS (First Class).

(Adjoining the Grand Pump Room).

FIRST FLOOR.

Open from 7 a.m. till 7 p.m.—SUNDAYS till 9.30 a.m.

		s.	d.	Fee.			s.	d.	Fee.
12	Deep Bath ..	2	6	3d.	16	Needle Douche ..	2	-	3d.
13	Chair Bath	2	6	3d.	17	Deep Bath and Needle Douche	3	0	3d.
14	Reclining Bath	2	0	3d.	18	Vertebral Douche	2	0	3d.
15	Douche (Local) ..	1	0	3d.					

Douche, Shower, Lumbar Douche, Ascending or Rose Douche, each 6d. extra.
Ladies' Special Douche .. .. 1 - Fee 3d.

		s.	d.	Fee.			s.	d.	Fee.
21	Massage Douche (Aix-les-Baines) 2 doucheurs..	3	6	6d.	23	Sprays for Throat, Eyes, Nose, Ears or Face	1	0	3d.
22	Ditto ditto 1 doucheur	2	0	3d.	24	Charles & Le Bourboule Spray	1	6	3d.

Aix Massage followed by Circular Needle Douche 6d. extra.

GROUND FLOOR.

		s.	d.	Fee.			s.	d.	Fee.
25	Berthollet Natural Vapour, 15 min. ..	2	6	3d.	31	Scottish Douche in Reclining Bath ..	2	6	3d.
26	Sitz Bath	2	-	3d.	32	Reclining Bath with Massage in Bath & Scottish Douche .	3	0	6d.
27	Reclining Bath	1	6	3d.	33	Reclining Bath,(ladies)	6		1d.
28	Ditto 2nd class ..	1	0	3d.	34	Kings' Public Bath	6d. &	1	0	1d.
29	Reclining Bath with Massage in Bath ..	1	9	6d.		Douche or Shower, 6d. extra.			
30	Massage Douche, 2nd class, 1 doucheur ..	1	6	3d.					

Massage in any Reclining, Sitz or Vapour Bath, 1/- extra, fee 3d.
All Massage and Douche 15 minutes or less.

THERMALSOOLBADER

(NAUHEIM SYSTEM).

		s.	d.	Fee.
35	Thermalbad No. 1	3	0	3d.
36	Sprudelbad No. 2	4	0	3d.

Local Massage when prescribed 1/- extra, fee 3d.
Given at the King's and Queen's and the New Royal Baths.

HOT AIR BATHS BY ELECTRICITY.

(GREVILLE SYSTEM).

	£	s.	d.	Single bath s.	d.
Arm, Shoulder, Elbow, Hip, Leg, Knee or Spine (for three applications)	1	1	0	10	0
Both Arms or both Legs, or one Arm and one Leg (for three applications)	1	1	0	10	0
Whole Body (for three applications)	1	1	0	10	0
Neck, Throat, Ear or Eye (for six applications)	0	12	6	2	6
Or in conjunction with Hot Mineral Water	1	1	0	4	6
The Mineral Water alone, the Throat, Ear or Eye (for six applications)	0	12	6	2	0
Hand or Foot (for each application)	0	5	0		
Both Hands or both Feet (for each application)	0	7	6		
Stomach (for each application)	0	5	0		
Electric Mineral Water Douche	0	3	6		
Or in conjunction with either of the above applications ..	0	1	6		

These Baths (exclusive of Throat, Ear or Eye) are usually of 40 minutes' duration; but this period may be varied by order of Medical Men.

OLD ROYAL or HETLING BATHS, BATH STREET.

WEEK DAYS, Open from 7 a.m. till 9 p.m. SUNDAYS till 9.30 a.m.

		s.	d.	Fee.			s.	d.	Fee.
37	Medicated Bath ..	2	9	3d.	42	Reclining Bath ..	1	6	3d.
38	First-class Massage	2	9	3d.	43	Local Douche ..	1	6	3d.
39	Second-class ,,	2	0	3d.	44	Enema Bath .	1	6	3d.
40	Deep Bath, 1st class	2	0	3d.	45	Shower Bath ..	1	6	3d.
41	,, ,, 2nd class	1	6	3d.	46	Vapour Natural ..	1	6	3d.

TEPID SWIMMING BATH, BATH STREET.

GENTLEMEN ONLY.

With use of Private Room, 9d., no fee. | Use of Public Room, 6d., no fee.

This Bath is open from 7 a.m. till 9 p.m.
Sunday till 9.30. a.m. Closed on Thursdays at 1 p.m.

KINGSTON BATHS, YORK STREET.

GENTLEMEN ONLY.

Deep Bath, with Hot Towel .. .. 6d. Fee 1d.

This Bath is open from 7 a.m. to 9 p.m. daily, and on Sundays till 9.30 a.m.

CROSS BATH, BATH STREET.

Open daily (Wednesdays excepted) in Summer from 6 a.m. and in Winter from 7 a.m. Sundays till 9 a.m.

MALES.			FEMALES.	
Open Bath	1d.	No Fee	On Thursdays only,	
Ditto, with Towel ..	2d.	,,	Open Bath, Dress, &c.	2d.

Under the charge of a Female attendant.

ARRANGEMENTS FOR DRINKING THE WATERS.

The Grand and Hetling Pump Rooms are open each Week-day from 8.30 till 6 p.m., and on Sundays, after morning service, till 2 p.m.
Books of Coupons, 14 Glasses, 1/6. Single Glass, 2d.

LAWRENCE H. WILSON, Secretary and Manager.

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